

CONSERVATION DESIGN FORUM

Landscape Architecture • Community Planning • Ecological Restoration • Resource Management



EIGHTH-YEAR RESTORATION MONITORING REPORT FOR THE BLACKWELL LANDFILL PRAIRIE RESTORATION

Prepared for:

MWH 175 West Jackson Boulevard Suite 1900 Chicago, Illinois 60604-2814

January 2009



January 23, 2009

Mr. Thomas Williams
Remedial Project Manager
United States Environmental Protection Agency, Region 5
Mail Code SR-J6
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: Eighth Year Prairie Restoration Monitoring Report Blackwell Forest Preserve Landfill Site

Dear Mr. Williams:

On behalf of the Forest Preserve District of DuPage County (District), we are pleased to submit two copies of the 2008 Monitoring Report for the Blackwell Landfill Prairie Restoration (Eighth Year Report). This report summarizes the progress of the restoration strategy, eighth year maintenance tasks, and the vegetation growth assessment using the Floristic Quality Assessment (FQA) method in accordance with the December 2000 Revised Phase I Restoration Plan for the Revegetation of the Blackwell Landfill (Phase I Plan). The Eighth Year Report was prepared by Conservation Design Forum. MWH provided technical oversight during the prairie restoration activities undertaken in 2008.

This Eighth Year Report indicates that the prairie revegetation is developing as expected after the seventh full growing season. The Report also indicates that an increase in prairie species diversity is expected in the coming years as the prairie matures.

In accordance with the December 2000 Phase I Plan, the District will continue to provide prairie restoration stewardship and will submit the Ninth Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration during the first quarter of 2010.

If you have questions on this restoration, please contact me at (312) 831-3466.

Sincerely,

MWH AMERICAS, INC.

Peter J. Vagt, Ph.D., CPG Project Coordinator

cc: Thomas Williams – U.S. Environmental Protection Agency (2 copies)
Rick Lanham – Illinois Environmental Protection Agency (3 copies)
Joseph Benedict – Forest Preserve District of DuPage County (2 copies)
David Barritt – Chapman and Cutler (without attachments)
File (1 copy)

Attachments: Eighth Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration

TPC/JEF/PJV/app J:\405\0581 Blackwell\4050581a98.doc

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Prepared for:

MWH 175 West Jackson Boulevard Suite 1900 Chicago, Illinois 60604-2814

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EIGHTH-YEAR RESTORATION MONITORING REPORT

FOR THE

BLACKWELL LANDFILL PRAIRIE RESTORATION

Warrenville, Illinois

Prepared for:

MWH 175 West Jackson Boulevard Suite 1900 Chicago, Illinois 60604-2814

January 2009

CONSERVATION DESIGN FORUM Project No. 08035.00

Date: January 12th, 2009

Prepared by:

Kamth C. Fohnson

Kenneth C. Johnson

Project Manager

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EXECUTIVE SUMMARY

- This report documents restoration maintenance activities, as well as vegetation
 monitoring data that occurred during the 2008 calendar year at the Blackwell Landfill
 prairie restoration. The monitoring data represent the seventh full growing season of the
 native landscape reconstruction. The first monitoring year (2001) documented the prairie
 seed installation, and established baseline transect data.
- Restoration maintenance activities completed in 2008 included: prescribed burn; targeted weed control via herbicide applications and plant removal from late spring through fall; and miscellaneous woody sapling removal. In addition, native prairie grass seed was collected and dispersed across the project site and fire breaks were mowed in preparation of a controlled burn that is planned for spring of 2009.
- The results of the vegetation monitoring indicate the landscape is developing as should be expected for a prairie reconstruction that has completed its seventh year of growth from seed. Some portions of the landscape lack uniform prairie cover; this is primarily due to challenging site conditions such as steep slopes and compacted soils. In many other portions of the site prairie vegetation is well established.
- Time and continued maintenance (annual controlled burn and native seed collection and dispersal) are necessary for the site to mature into a more evenly-disposed prairie landscape. Overall floristic quality values should remain around their current levels with continued maintenance.
- Overall, the attempt at prairie reconstruction to date at Blackwell Landfill is better than
 many native landscape reconstructions of similar scale and age—this is due to dedicated
 maintenance activities that have been performed every year since the initial seed
 installation. In time and with continued maintenance there is reason to believe that
 prairie grasses will be well-dispersed across all portions of the project site. At this point in its
 maturity, the site itself can be the source of most of the prairie grass seed used in seed
 collection and dispersal.

INTRODUCTION

PROJECT SITE LOCATION AND PURPOSE

As depicted on EXHIBIT A – PROJECT LOCATION MAP, Blackwell Landfill is located north of Butterfield Road (Route 56), between Batavia Road and Winfield Road, in Warrenville, DuPage County, Illinois (SW1/4, Section 26, T39N, R9E). The site is owned and operated by the Forest Preserve District of DuPage County. As detailed on EXHIBIT B – BLACKWELL LANDFILL PRAIRIE RESTORATION, the project area includes most of the slopes across the landfill.

The purpose of prairie restoration monitoring is two-fold. First, restoration monitoring is a fundamental component to all *de novo* ("from scratch") native landscape reconstructions to assess the vegetation development and make recommendations for proper land management. Another important purpose of monitoring is to provide data to the U.S. Environmental Protection Agency in regards to the development of the native landscape across the landfill slopes as outlined in the approved restoration plan (Montgomery Watson Harza and Conservation Design Forum, 2000).

RESTORATION ACTIVITIES CONDUCTED IN 2008

The following is a chronological list of management activities that were conducted at the prairie restoration site in 2008. [See earlier monitoring reports for activities that were conducted in previous years.]

- <u>April 15th</u>: prescribed burn; with approximately three-quarters of the prairie landscape burned to ash.
- <u>May 21st</u>: targeted weed control of Field Thistle, Crown Vetch, and Bird's Foot Trefoil using a mixture of *Garlon* and a 2,4-D herbicide.
- <u>June 4th, 18th</u>: repair disturbed areas near vaults and re-seed with prairie seed, then blanket with straw matting; targeted weed control of Field Thistle, Crown Vetch, and Bird's Foot Trefoil using a mixture of *Garlon* and a 2,4-D herbicide.
- <u>July 2nd, 16th, 30th</u>: targeted weed control of Field Thistle, Crown Vetch, and Bird's Foot Trefoil using a mixture of *Garlon* and a 2,4-D herbicide; cut and remove stands of sweet clover.
- <u>September 11th</u>: annual vegetation monitoring (the data represent the seventh full-growing season of the prairie landscape).
- <u>September 17th</u>: collection of prairie grass seed; cut and remove miscellaneous saplings.
- October 1st: collect prairie grass seed and disperse in areas where prairie vegetation is not well established; cut and remove miscellaneous saplings.
- October 22nd: mow fire breaks around site in preparation for a spring 2009 controlled burn; collect prairie grass seed (to be sown in spring 2009).

The prescribed burn in April was conducted by the Forest Preserve District of DuPage County. All other maintenance at the site was performed by V-3 Consultants (Woodrige, IL).

MONITORING METHODS

There are many ways to monitor de novo restorations and measure their performance. The approach utilized in this project emphasizes vegetation development and floristic quality assessment (FQA) methods. This is consistent with the approved landscape restoration plan and this monitoring strategy has been utilized at the site over the past several years. In summary, the vegetation is sampled along transect lines established within representative portions of the project site, and a qualitative inventory of the vegetation across the entire landscape is recorded as well. These vegetation sampling protocols are repeated every year so that trends in floristic development can be monitored over time.

A critical component in the evaluation of a restoration is to determine the extent of native species recruitment and establishment across the landscape. A useful method in the determination of floristic quality is through an analysis of the conservatism and diversity of species that are recorded during the monitoring event. Conservatism represents the degree to which an experienced field botanist has confidence that a given species is representative of a high-quality, remnant habitat (i.e., those natural areas with intact presettlement structure, composition, and processes). Native plant species display varying degrees of tolerance to disturbance, as well as varying degrees of fidelity to specific habitat integrity. Native plants of a given region exhibit an observable range of conservatism, and each native species can be assigned a coefficient of conservatism (C value) ranging from 0 to 10, "weedy to conservative," that reflects its disposition.

The Mean C is the average coefficient of conservatism for a site. The floristic quality index (FQI) is a statistic derived by multiplying Mean C by the square root of the number of species inventoried; thus, the FQI is a function of conservatism and diversity. In general, site inventories with FQI values less than 20 are degraded or derelict plant communities, or are very small habitat remnants. Site inventories with FQI values in the twenties through low thirties suffer from various kinds of disturbance, but generally have potential for habitat restoration and recovery. When site inventories have FQI values in the middle thirties or higher, and/or have Mean C values of 3.4 or higher, one can be confident that there is sufficient native character present for the area to be at least regionally noteworthy. Site inventories with indices in the middle forties and higher are undoubtedly significant natural area remnants of statewide importance.

As management and time cause changes to take place, Mean C and FQI values will reflect the extent to which conservative species are being recruited and the floristic quality is improving. If an inventoried site has a large proportion of conservative plants, the Mean C is higher; in a degraded site, the Mean C is lower. The presence of a large proportion of adventive species and non-conservative native species suggest that an area is degraded. The Mean C and FQI values for a sampling transect are calculated for the transect as a whole and for the average quadrat; a comparison of floristic values between the transect and quadrat level is useful to understand the uniformity of native species establishment.

Another useful measurement that is important in the evaluation of a de novo landscape restoration is that of the wetness value (W). Each plant species has been assigned a wetness category that indicates its probability of occurrence in a wetland. Plants are designated as Obligate Wetland (OBL=-5), Facultative Wetland (FACW=-3), Facultative (FAC=0), Facultative Upland (FACU=3), and Obligate Upland (UPL=5). For about 20% of our flora, a "+" or "-" sign has been attached to the three Facultative categories to express the exaggerated tendencies of those species. The "+" sign denotes that the species generally has a greater estimated probability of occurrence in wetlands; the "-" sign denotes that it generally has a

lesser estimated probability of occurrence in wetlands. Mean wetness values can be compared from year to year to gain an understanding on what type of plant species have become established across the restoration site.

Four (4) straight-line transects have been established across the Blackwell Landfill prairie restoration. A description of each transect location is as follows, and their locations are depicted on EXHIBIT B. These are the same transects used in the restoration monitoring events that have been conducted in previous years.

Transect 1 is located at vault cover "DV-10" in the northwestern portion of the site. The transect is oriented 0° north, and the first quadrat is placed 10 paces north of the vault cover.

Transect 2 is located at vault cover "DV-17" in the western portion of the site. The transect is oriented 90° east, and the first quadrat is placed 5 paces east of the vault cover.

Transect 3 is located at vault cover "DV-13" in the southeastern portion of the site. The transect is oriented 270° west. The first quadrat is placed 5 paces west of the vault cover.

Transect 4 is located at vault cover "DV-18" in the northeastern portion of the site. The transect is oriented 45° northeast. The first quadrat is placed 5 paces northeast of the vault cover.

A 0.25m² quadrat is placed at 10-pace intervals along each transect line until 10 quadrats are sampled. The vegetation within each quadrat is identified and given a relative cover/abundance number from 1 to 5 as shown in Table 1 below. A compass is used to stay on the correct orientation, and photographs are taken at the start of each transect in order to document the current site conditions.

Table 1. Summary of cover/abundance values

COVER/ ABUNDANCE NUMBER	APPROXIMATE COVER
1	1 to 5 plants present
2	5% to 25% cover
3	25% to 75% cover
4	Common/scattered throughout
5	Ubiquitous

The cover/abundance data is used to determine the relative importance value (RIV) for each species recorded along a transect. The RIV of each species is calculated by summing relative frequency and relative cover and dividing by 2. This and other information gathered via transect sampling offers important quantitative data that is used to interpret the development of the native landscape.

RESULTS AND DISCUSSION

The results of the plant inventories and transect sampling are presented below. The field work occurred on September 11th, 2008 and was performed by Kenneth Johnson. The weather conditions during the monitoring event were partly sunny, with air temperatures around 80° Fahrenheit, so sampling conditions were optimum. Photographs taken during the field work are included at the back of the report. Refer to EXHIBIT B for a plan view of the project site.

GENERAL PLANT INVENTORY AND FQA DATA

The results of the plant inventory and associated FQA data for the Blackwell Landfill prairie restoration are presented in APPENDIX I. Table 2 below summarizes the total number of native species recorded during the inventory (NS), along with the percent that these native species comprise of all plants recorded (%TS). The last two columns are the native Mean C and FQI values. For comparative purposes these same data are presented from the restoration monitoring conducted in previous years. Also shown is similar data from 1999 when a fall vegetation inventory of the landfill slopes was conducted (as part of the initial planning efforts for the landfill landscape, prior to any landscape restoration).

PLAN	Plant Inventory & FQA Data Summary								
Year	NS (%TS)	Mean C	FQI						
1999	37 (44%)	1.8	11						
2001	53 (47%)	1.7	13						
2002*	42 (46%)	2.2	14						
2003	71 (56%)	2.5	22						
2004	72 (55%)	2.8	23						
2005	57 (49%)	3.2	24						
2006	72 (60%)	3.1	27						
2007	61 (57%)	2.8	22						
2008	56 (59%)	2.8	21						

Table 2. FQA data summary

The results of the inventory data indicate a positive trend in the establishment of the initial landscape restoration over the past several years. Based upon these data and general site observations during the 2008 calendar year, the prairie is developing as expected for having completed its seventh full-growing season since installation (installation occurred in early summer of 2001).

As in the past few years, the most frequently encountered species noted during the meander/inventory in September 2008 included: prairie grasses such as Side-oats Grama, Canada Wild Rye, and Indian Grass, and cool-season Eurasian grasses such as Smooth Brome and Quack Grass. The back slopes are dominated by Crown Vetch and Eurasian grasses.

^{* =} First full growing season of the de novo prairie landscape.

As has been documented in previous reports, some portions of the landscape have been slow to establish a uniform cover of prairie vegetation due to steep slopes and compacted soils. On the other hand, other portions of the site have a well-established cover of prairie grasses and have performed very well. Overall, these FQA values should remain around their current levels as long as routine maintenance is continued.

TRANSECT SAMPLING AND FQA DATA

The results of the four straight-line transects are presented in APPENDIX II. As stated above, each transect runs through a representative portion of the prairie landscape, and each is the same as that sampled in previous years. Transect sampling helps to quantify the vegetation changes and landscape development at the site. A comparison of floristic values between the transect and the quadrat level data is useful to understand the uniformity of native species establishment.

Tables 3—6 below presents a summary of the data collected for each transect. The aggregate transect data are presented separately from the average quadrat data. The number of native taxa (NT) is given, along with native Mean C and native FQI values. For comparative purposes these same data from past restoration monitoring are included in the table.

<u>Table 3. Transect 1 data summary</u>

T1	Transect Data Summary			AVE QUADRAT DATA SUMMARY			
YEAR	NT	Mean C	FQI	NT	Mean C	FQI	
2001	6	2.5	6	1.7	0.7	1.0	
2002	11	1.8	6	2.4	2.7	4.2	
2003	12	2.7	9	3.1	2.9	5.0	
2004	10	3.1	10	2.6	4.8	6.9	
2005	7	3.7	· 10	2.0	3.8	5.3	
2006	9	4.1	12	2.7	2.9	5.6	
2007	14	2.9	11	3.2	4.1	6.8	
2008	10	3.1	10	2.0	2.3	4.0	

Table 4. Transect 2 data summary

T2	Transect Data Summary			AVE QUADRAT DATA SUMMARY			
YEAR	NT	Mean C	FQI	NT	Mean C	FQI	
2001	9	3.0	9	0.9	0.5	1.1	
2002	8	2.5	7	1.4	2.6	3.7	
2003	11	2.7	9	2.0	2.3	3.7	

T2	Transe	CT DATA SU	MMARY	AVE QUADRAT DATA SUMMARY			
YEAR	NT	MEAN (C	FQI	NT	Mean C	FQI	
2004	17	2.8	11	2.4	1.3	2.4	
2005	10	2.7	9	1.7	2.2	3.1	
2006	11	1.8	6	1.4	1.1	1.5	
2007	12	3.4	12	1.9	1.7	2.7	
2008	6	1.5	4	1.3	1.2	1.5	

Table 5. Transect 3 data summary

Т3	Transe	CT DATA SU	MMARY	AVE QUADRAT DATA SUMMARY			
YEAR	NT	Mean C	FQI	NT	Mean C	FQI	
2001	8	0.6	2	2.1	0.2	0.3	
2002	11	2.1	7	2.8	1.4	2.6	
2003	12	2.7	9	3.7	2.1	4.5	
2004	15	3.0	12	2.9	3.1	4.9	
2005	16	3.6	14	3.9	3.3	6.2	
2006	19	3.8	1,7	3.5	3.1	5.9	
2007	16	2.4	10	3.8	2.7	5.2	
2008	20	4.0	18	4.2	4.2	8.5	

Table 6. Transect 4 data summary

T4	TRANSE	CT DATA SU	MMARY	AVE QUADRAT DATA SUMMARY			
YEAR	NT	NT MEAN C		NT	Mean C	FQI	
2001	8	0.6	2	2.4	0.1	0.3	
2002	13	3.0	11	3.3	4.4	7.3	
2003	22	3.1	15	5.6	3.2	7.9	
2004	16	4.0	16	4.6	4.7	9.7	
2005	19	4.0	17	4.3	4.7	9.7	
2006	16	4.1	17	4.6	4.2	9.4	
2007	17	4.8	20	4.3	4.7	10.1	
2008	17	4.1	17	4.3	4.2	9.1	

A summary these data is very much the same as what was stated last year, namely:

- Targeted weed control, compacted soils, and/or steep slopes in the areas of the site where Transects 1 and 2 are located have hindered prairie vegetation establishment. New- and Old-world weeds remain common and dominate some portions of these (and other) areas of the site. Continued overseeding of native prairie grasses, targeted weed control efforts, and annual burn management will, in time, help to improve native vegetation cover.
- The landscape in the vicinity of Transects 3 and 4 continues to show generally impressive FQA values for a native landscape recreation that has completed its seventh full growing season. It is likely that these results will level off near these current figures without a native species enhancement program.

The relative importance values (RIV) for the top 50% of species from each transect are presented in APPENDIX III. For comparative purposes these same data from past restoration monitoring are included in the tables. [In previous reports this information was placed in this portion of the document, but due to size these four tables are now in their own appendix.]

Eurasian, cool-season grasses, such as Smooth Brome (Bromus inermis) and Kentucky Blue Grass (Poa pratensis) remain common across the site; Crown Vetch (Coronilla varia) remains a common weed on the back slopes and locally elsewhere despite repeated targeted herbicide applications. Various other weeds remain common in scattered stands across the landscape as well.

A combined assessment of all forty (40) quadrats from each year is summarized in Table 7 below. With several years of data, this analysis offers an aggregate performance of the entire site as a whole from year to year.

Table 7. Combined transect data summary

TRANSECT/YR	Transe	CT DATA SUA	MARY	AVE QUA	DRAT DATA S	SUMMARY
	NT	MEAN C	FQI	NT	MEAN C	FQI
2001	19	1.6	7	1.8	0.4	0.7
2002*	20	2.1	9	2.5	2.8	4.5
2003	33	2.3	13	3.6	2.6	5.3
2004	31	3.2	18	1.8	3.5	6.0
2005	27	3.5	18	3.0	3.5	6.1
2006	27	3.5	18	3.1	2.8	5.6
2007	33	3.1	18	3.3	3.3	6.2
2008	27	3.5	18	3.0	3.0	5.8

^{* =} First full growing season of the de novo prairie landscape.

These data show an average of the quadrat values and, overall, show a positive trend in FQA values over the first seven years of vegetation establishment.

SEEDED SPECIES RECRUITMENT

An alphabetical list of the 37 native species that were seeded as part of the prairie landscape installation in May and June of 2001 are presented in APPENDIX IV. Each species is listed along with its C value (in parenthesis). If the species was recorded from the site during the 2008 monitoring event it is indicated with a "Y", and if not it is indicated with a "N". The columns to the right summarize the RIV of each species if recorded during the transect sampling.

In summary, twenty-five (25) of the 37 seeded species were recorded during the monitoring event in September of 2008. For comparative purposes these same data from past restoration monitoring are presented in Table 8 below.

Table 8. Summary of seeded species recruitment

SEEDED	SEEDED SPECIES RECRUITMENT						
YEAR	YEAR NO. SPECIES MEAN C						
2001 Seeding	37	5.6					
2001	10	4.5					
2002*	12	4.8					
2003	` 19	5.3					
2004	26	5.3					
2005	24	5.4					
2006	28	5.5					
2007	23	5.0					
2008	25	5.0					

• = First full growing season of the de novo prairie landscape.

Over the past few years, prairie grasses such as Big Bluestem Grass, Indian Grass, etc., have consistently been in top 50% RIV. This is a positive sign that is at least in part can be attributed to the seed collection and dispersal efforts and prescribed burns.

Future restoration monitoring should be compared to these data in order to show trends in the development of the intended native landscape. In general, after four (4) full growing seasons approximately 40% of the seeded prairie species should be recorded in a site inventory—and if so, then the initial seeding should be considered satisfactory. Based upon the 2008 data, after seven growing seasons approximately 68% of the seeded species are present across the project site.

The native Mean W of the site is summarized in Table 9 below and for comparative purposes these same data from past restoration monitoring are included. These are compared to the Mean W of the 37 seeded species.

Table 9. Summary of native Mean W

2001 Seeding	2001	2002	2003	2004	2005	2006	2007	2008
2.5	1.5	1.3	1.4	1.6	1.6	1.3	1.7	1.4

In general, these data indicate that the site is recruiting from more mesic than dry-mesic plant species, and can be used to inform plant selection in future native species enhancement efforts.

SUMMARY

Maintenance activities that were completed across the Blackwell Landfill prairie restoration in 2008 included: prescribed burn; targeted weed control via herbicide applications and plant removal; and miscellaneous woody sapling removal. In fall, additional targeted weed control was conducted, native prairie grass seed was collected and dispersed across the project site, and fire breaks were mowed in preparation of a spring 2009 prescribed burn.

Overall, the results of the vegetation monitoring data indicate the native landscape restoration is progressing in a positive manner, due to on-going maintenance that has been performed since the initial seed installation. In time and with continued maintenance there is reason to believe that prairie grasses will be well-dispersed across all portions of the project site. And at this point in its maturity, the site itself can be the source of most of the prairie grass seed used in seed collection and dispersal.

GENERAL REFERENCES

The following documents were reviewed and referenced in the preparation of this report.

Conservation Design Forum. (January) 2002. First Year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration. Elmhurst, IL.

Conservation Design Forum. (December) 2002. Second-year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration. Elmhurst, IL.

Conservation Design Forum. 2003. Third-year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration. Elmhurst, IL.

Conservation Design Forum. 2004. Fourth-year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration. Elmhurst, IL.

Conservation Design Forum. 2005. Fifth-year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration. Elmhurst, IL.

Conservation Design Forum. 2007. Sixth-year Restoration Monitoring Report for the Blackwell Landfill Prairie Restoration. Elmhurst, IL.

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Montgomery Watson and Conservation Design Forum. 2000. Phase 1 Restoration Plan for the Revegetation of the Blackwell Landfill. Forest Preserve District of DuPage County, IL.

Montgomery Watson and Conservation Design Forum. 2001. Contractor Bid Package for Phase 1 Prairie Landscape Installation and Post-planting Maintenance. Forest Preserve District of DuPage County, IL.

MWH Americas, Inc. 2004. Phase I Prairie Restoration Controlled Burn Activities Summary, Blackwell Forest Preserve. Forest Preserve District of DuPage County, IL.

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Swink, F. and G. Wilhelm. 1994. Plants of the Chicago Region, 4th edition. Indiana Academy of Science. Indianapolis, Indiana.

Taft, J., G. Wilhelm, D. Ladd, and L. Masters. 1997. Floristic Quality Assessment for Vegetation in Illinois: A Method for Assessing Vegetation Integrity. Erigenia 14, pp. 3-95.

Wilhelm, G. and L. Masters. 1999. Floristic Quality Assessment and Computer Applications. Conservation Research Institute. Elmhurst, IL.

APPENDICES

APPENDIX I

Vegetation Inventory & Floristic Quality Assessment

The following is a summary of the inventory data generated using Wilhelm and Masters' Floristic Quality Assessment and Computer Applications, 1999. Plant nomenclature follows Swink and Wilhelm's Plants of the Chicago Region, 1994. More information on floristic quality assessment methodology can be found in *Erigenia*, number 15, November, 1997. The plant inventory and assessment is divided into 2 sections as follows.

Section 1 includes three tables that summarize the inventory assessment data. The table to the left is an analysis of the floristic quality of the project area. In addition to listing the number of native species and total number of species, the mean coefficient of conservatism (MEAN C), floristic quality index (FQI), and mean wetness (MEAN W) values are presented. These are calculated once for native species only, and a second time including adventive species (W/Adventives). The two other tables summarize the number and percent of species in each physiognomic group (A=annual, B=biennial, P=perennial, W=woody, H=herbaceous).

Section 2 includes the plant inventory arranged alphabetically, with each species preceded by its database acronym and coefficient of conservatism (C=0 to 10, weedy to conservative); and followed by its wetness coefficient (W=-5 to +5, wet to dry), corresponding national wetland indicator status (OBL=obligate wetland species, FAC=facultative species, UPL=upland species), physiognomic group, and common name. Adventive species are written in ALL CAPS and have an asterisk (*) for their C value.

The Mean C is the average coefficient of conservatism for the site. The FQI is derived by multiplying Mean C by the square root of the number of species present. In general, sites with FQI values less than twenty are degraded or derelict plant communities, or are very small habitat remnants. Sites with FQI values in the twenties through low thirties suffer from various kinds of disturbance, but generally have potential for habitat restoration and recovery. When sites have FQI values in the middle thirties or higher, one can be confident that there is sufficient native character present for the area to be at least regionally noteworthy. Sites with indices in the middle forties and higher are often also statewide significant natural areas.

Site: Blackwell Landfill Prairie Restoration

Locale: Warrenville - DuPage County, IL

Date: September 11, 2008

By: Conservation Design Forum (Johnson)

SECTION 1. SUMMARY TABLES

FLORISTIC QUALITY DATA	Native	56	58.9%	Adventive	39	41.1%
56 NATIVE SPECIES	Tree	6	6.3%	Tree	1	1.1%
95 Total Species	Shrub	2	2.1%	Shrub	2	2.1%
2.8 NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
1.7 W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
21.0 NATIVE FQI	P-Forb	31	32.6%	P-Forb	11	11.6%
16.1 W/Adventives	B-Forb	2	2.1%	B-Forb	8	8.4%
1.4 NATIVE MEAN W	A-Forb	7	7.4%	A-Forb	7,	7.4%
2.0 W/Adventives	P-Grass	7	7.4%	P-Grass	7	7.4%
AVG: Faculative (-)	A-Grass	1	1.1%	A-Grass	3	3.2%
	P-Sedge	0	0.0%	P-Sedge	0	0.0%
	A-Sedge	0	0.0%	A-Sedge	0	0.0%
	Cryptogam	0	0.0%			

SECTION 2. SPECIES INVENTORY

ACRONYM	C SCIENTIFIC NAME	W WETNESS	PHYSIOGNOMY	COMMON NAME
ABUTHE	O ABUTILON THEOPHRASTI	4 FACU-	Ad A-Forb	VELVETLEAF
ACENEG	0 Acer negundo	-2 FACW-	Nt Tree	BOX ELDER
AGRREP	O AGROPYRON REPENS	3 FACU	Ad P-Grass	QUACK GRASS
AGRALA	O AGROSTIS ALBA	-3 FACW	Ad P-Grass	REDTOP ·
ALLPET	O ALLIARIA PETIOLATA	· 0 FAC	Ad B-Forb	GARLIC MUSTARD
AMBARE	O Ambrosia artemisiifolia elatior	3 FACU	Nt A-Forb	COMMON RAGWEED
AMBTRI	O Ambrosia trifida	-1 FAC+	Nt A-Forb	GIANT RAGWEED
ANDGER	5 Andropogon gerardii	1 FAC-	Nt P-Grass	BIG BLUESTEM GRASS
ANDSCO	5 Andropogon scoparius	4 FACU-	Nt P-Grass	LITTLE BLUESTEM GRASS
ARCMIN	O ARCTIUM MINUS	5 UPL	Ad B-Forb	COMMON BURDOCK
ASCSYR	O Asclepias syriaca	5 UPL	Nt P-Forb	COMMON MILKWEED
ASCVER	1 Asclepias verticillata	5 UPL	Nt P-Forb	WHORLED MILKWEED
ASTERI	5 Aster ericoides	4 FACU-	Nt P-Forb	HEATH ASTER
ASTNOV	4 Aster novae-angliae	-3 FACW	Nt P-Forb	NEW ENGLAND ASTER
ASTPIL	O Aster pilosus	2 FACU+	Nt P-Forb	HAIRY ASTER
ATRPAT	O ATRIPLEX PATULA	-2 FACW-	Ad A-Forb	COMMON ORACH
BOUCUR	8 Bouteloua curtipendula	5 UPL	Nt P-Grass	SIDE-OATS GRAMA
BROINE	0 BROMUS INERMIS	5 UPL	Ad P-Grass	HUNGARIAN BROME
CHEALB	O CHENOPODIUM ALBUM	1 FAC-	Ad A-Forb	LAMB'S QUARTERS
CICINT	0 CICHORIUM INTYBUS	5 UPL	Ad P-Forb	CHICORY
CIRARV	0 CIRSIUM ARVENSE	5 UPL	Ad P-Forb	FIELD THISTLE
CONARV	O CONVOLVULUS ARVENSIS	5 UPL	Ad P-Forb	FIELD BINDWEED
CORTRP	5 Coreopsis tripteris	0 FAC	Nt P-Forb	TALL COREOPSIS ,
CORVAR	O CORONILLA VARIA	5 UPL	Ad P-Forb	CROWN VETCH
DACGLO	O DACTYLIS GLOMERATA	3 FACU	Ad P-Grass	ORCHARD GRASS
DAUCAR	O DAUCUS CAROTA	5 UPL	Ad B-Forb	QUEEN ANNE'S LACE
DESCAA	4 Desmodium canadense	1 FAC-	Nt P-Forb	SHOWY TICK TREFOIL
DIPLAC	O DIPSACUS LACINIATUS	5 UPL	Ad B-Forb	CUT-LEAVED TEASEL
ECHPUR	3 Echinacea purpurea	5 UPL	Nt P-Forb	BROAD-LEAVED PURPLE CONEFLOWER
ECHCRU	O Echinochloa crusgalli	-3 FACW	Nt A-Grass	BARNYARD GRASS
ELAUMB	O ELAEAGNUS UMBELLATA	5 UPL	Ad Shrub	AUTUMN OLIVE
ELYCAN	4 Elymus canadensis	1 FAC-	Nt P-Grass	CANADA WILD RYE
EPICOL	3 Epilobium coloratum	-5 OBL	Nt P-Forb	CINNAMON WILLOW HERB
ERIANS	0 Erigeron annuus	1 FAC-	Nt B-Forb	ANNUAL FLEABANE
ERICAN	O Erigeron canadensis	1 FAC-	Nt A-Forb	HORSEWEED
ERIVIL	O ERIOCHLOA VILLOSA	5 UPL	Ad A-Grass	CHINESE CUP GRASS /
ERYYUC	9 Eryngium yuccifolium	-1 FAC+	Nt P-Forb	RATTLESNAKE MASTER
EUPALT	O Eupatorium altissimum	3 [FACU]	Nt P-Forb	TALL BONESET
EUPSEM	0 Eupatorium serotinum	-1 FAC+	Nt P-Forb	LATE BONESET
EUPMAA	0 Euphorbia maculata	3 FACU	Nt A-Forb	EYEBANE
FESELA	0 FESTUCA ELATIOR	2 FACU+	Ad P-Grass	TALL FESCUE
FRAPES	1 Fraxinus pennsylvanica subintegerrima	0 FAC	Nt Tree	GREEN ASH
GLETRI	2 Gleditsia triacanthos	, 0 FAC	Nt Tree	HONEY LOCUST

EIGHTH-YEAR RESTORATION MONITORING REPORT — APPENDIX I BLACKWELL LANDFILL PRAIRIE RESTORATION — WARRENVILLE, IL CONSERVATION DESIGN FORUM (PROJECT NO. 08035.00)

HELMOL	9 Helianthus mollis		t P-Forb	DOWNY SUNFLOWER
HELSTR	5 Helianthus strumosus		t P-Forb	PALE-LEAVED SUNFLOWER
HELHEL	5 Heliopsis helianthoides	5 UPL Nt	t P-Forb	FALSE SUNFLOWER
HIBTRI	O HIBISCUS TRIONUM	5 UPL A	d A-Forb	FLOWER-OF-AN-HOUR
JUNTOR	4 Juncus torreyi	-3 FACW Nt	t P-Forb	TORREY'S RUSH
JUNVIC	2 Juniperus virginiana crebra	3 FACU N	t Tree	RED CEDAR
LACSER	0 LACTUCA SERRIOLA	0 FAC A	d B-Forb	PRICKLY LETTUCE
LEOCAR	0 LEONURUS CARDIACA	5 UPL A	d P-Forb	MOTHERWORT
LINUSI	O LINUM USITATISSIMUM	5 UPL A	d A-Forb	COMMON FLAX
LOTCOR	0 LOTUS CORNICULATUS	1 FAC- Ac	d P-Forb	BIRD'S FOOT TREFOIL
MEDSAT	O MEDICAGO SATIVA	5 UPL A	d P-Forb	ALFALFA
MELALB	O MELILOTUS ALBA	3 FACU A	d B-Forb	WHITE SWEET CLOVER
MELLOF	O MELILOTUS OFFICINALIS	3 FACU A	d B-Forb	YELLOW SWEET CLOVER
MONFIS	4 Monarda fistulosa	3 FACU N	t P-Forb	WILD BERGAMOT
NEPCAT	O NEPETA CATARIA	1 FAC- Ac	d P-Forb	CATNIP
OENBIE	O Oenothera biennis	3 FACU N	t B-Forb	COMMON EVENING PRIMROSE
PANVIR	5 Panicum virgatum	-1 FAC+ N1	t P-Grass	SWITCH GRASS
PENDIG	4 Penstemon digitalis	1 FAC- N1	t P-Forb	FOXGLOVE BEARD TONGUE
PETPUR	9 Petalostemum purpureum	5 UPL N1	t P-Forb	PURPLE PRAIRIE CLOVER
PHAARU	O PHALARIS ARUNDINACEA	-4 FACW+ Ac	d P-Grass	REED CANARY GRASS
PHRAUS	1 Phragmites australis	-4 FACW+ N1	t P-Grass	COMMON REED
PHYSUB	O Physalis subglabrata	5 UPL N	t P-Forb	TALL GROUND CHERRY
PHYAME	1 Phytolacca americana	1 FAC- N1	t P-Forb	POKEWEED
PLARUG	O Plantago rugelii	0 FAC N1	t A-Forb	RED-STALKED PLANTAIN
POAPRA	O POA PRATENSIS	1 FAC- Ac	d P-Grass	KENTUCKY BLUE GRASS
POLCON	O POLYGONUM CONVOLVULUS	1 FAC- Ad	d A-Forb	BLACK BINDWEED
POLPEN	O Polygonum pensylvanicum	-4 FACW+ N1	t A-Forb	PINKWEED
POPDEL	2 Populus deltoides	-1 FAC+ N1	t Tree	EASTERN COTTONWOOD
PYCVIR	5 Pycnanthemum virginianum	-4 FACW+ N1	t P-Forb	COMMON MOUNTAIN MINT
RATPIN	4 Ratibida pinnata	5 UPL N1	t P-Forb	YELLOW CONEFLOWER
RHACAT	0 RHAMNUS CATHARTICA	3 FACU A	d Shrub	COMMON BUCKTHORN
RHUGLA	1 Rhus glabra	5 UPL N1	t Shrub	SMOOTH SUMAC
RHUTYP	1 Rhus typhina	5 UPL N1	t Tree	STAGHORN SUMAC
RUDHIR	1 Rudbeckia hirta	3 FACU • N1	t P-Forb	BLACK-EYED SUSAN
RUDTRI	3 Rudbeckia triloba	1 FAC- N	t A-Forb	BROWN-EYED SUSAN
RUMCRI	0 RUMEX CRISPUS	-1 FAC+ Ac	d P-Forb	CURLY DOCK
SALINT	1 Salix interior	-5 OBL N	t Shrub	SANDBAR WILLOW
SETFAB	O SETARIA FABERI	2 FACU+ Ac	d A-Grass	GIANT FOXTAIL
SETGLA	O SETARIA GLAUCA	O FAC A	d A-Grass	YELLOW FOXTAIL
SILINI	5 Silphium integrifolium	5 UPL N	t P-Forb	ROSIN WEED
SILLAC	5 Silphium laciniatum	5 UPL N	t P-Forb	COMPASS PLANT
SILTER	5 Silphium terebinthinaceum	3 FACU N	t P-Forb	PRAIRIE DOCK
SOLCAR	O SOLANUM CAROLINENSE	4 FACU- Ac	d P-Forb	HORSE NETTLE
SOLALT	1 Solidago altissima	3 FACU N	t P-Forb	TALL, GOLDENROD
SOLGRN	3 Solidago graminifolia nuttallii	O [FAC] No	t P-Forb	HAIRY GRASS-LEAVED GOLDENROD
SOLRIG	4 Solidago rigida	4 FACU- N1	t P-Forb	STIFF GOLDENROD
SORNUT	5 Sorghastrum nutans	2 FACU+ N1	t P-Grass	INDIAN GRASS
TEUCAN	3 Teucrium canadense	-3 FACW N	t P-Forb	GERMANDER
TRIPRA	0 TRIFOLIUM PRATENSE	5 UPL A	d P-Forb	RED CLOVER
ULMPUM	0 ULMUS PUMILA	5 UPL A	d Tree	SIBERIAN ELM
VERTHA	0 VERBASCUM THAPSUS	5 UPL A	d B-Forb	COMMON MULLEIN
XANSTR	0 XANTHIUM STRUMARIUM	0 FAC Ac	d A-Forb	COCKLEBUR

APPENDIX II

TRANSECT SAMPLING & FLORISTIC QUALITY ASSESSMENT

The following is a summary of the transect data generated using Wilhelm and Masters' Floristic Quality Assessment and Computer Applications, 1999. Plant nomenclature follows Swink and Wilhelm's Plants of the Chicago Region, 1994. More information on floristic quality assessment methodology can be found in Erigenia, number 15, November, 1997. The results of each transect are presented in four sections as described below.

Section 1 is a summary of the quadrat data for the transect. The data listed for each quadrat includes the mean coefficient of conservatism (MC), floristic quality index (FQI), and mean wetness (MW). These values are calculated once for native species only, and a second time including adventive species (W/Ad). Also presented for each quadrat are the number of native species (NS), and number of total species (TS). Shown below each of these columns are their values averaged per quadrat (AVG), and standard deviation (STD). The columns to the far right are sequential averages of the wetness coefficients ([(x+n+y)/3]), data that can be useful in the evaluation of plants along a slope or topographical catena.

Section 2 is a summary these same values for the entire transect. First, there is a tabulation of the species in each conservatism category (0 to 10) and the percentage of species in three conservatism classes (0 to 3, 4 to 6, 7 to 10). The two columns below summarize the number and percent of species in each physiognomic group (A=annual, B=biennial, P=perennial, W=woody, H= herbaceous). Next, there is a summary of the relative importance values (RIV) of each physiognomic group; these values are calculated by summing the frequency (FRQ) and the cover class (COV) of each group found in the transect then dividing by two.

Section 3 is a table that lists the relative importance values for each species found in the transect sampling. Each species RIV is calculated by summing its relative frequency and its relative cover, then dividing by two. Each scientific name is followed by its coefficient of conservatism and wetland indicator status.

Section 4 is the transect inventory arranged alphabetically to scientific name. This is followed by a list of the quadrats along the transect string that includes the cover class value determined for each species recorded in the quadrat.

Blackwell Landfill Prairie - Transect 1

Warrenville - DuPage County, IL September 11, 2008 Locale:

Date:

By: Conservation Design Forum (Johnson)

Dy.	COMBCI	vacion besign	ı rorum	(00111150)II)				•
Section 1									
			TRA	NSECT I	DATA, QU	ADRAT			
QUAD	MC	W/Ad FQI	W/Ad	MW	W/Ad	NS	TS	MW SEQ	W/Ad
1	0.0	0.0 0.0	0.0	0.0	5.0	0	1	0.0	3.6
2	5.0	1.7 7.1	4.1	0.0	2.2	2	6	0.0	3.5
3	0.0	0.0 0.0	0.0	0.0	3.4	0	5	0.9	2.9
4	4.3	2.6 7.5	5.8	2.7	3.2	3	5	2.0	3.4
5	4.0	2.7 8.0	6.5	3.3	3.5	4	. 6	2.0	3.4
6	0.0	0.0 0.0	0.0	0.0	3.6	0	5	2.3	3.4
7	2.7	1.3 4.6	3.3	3.7	3.2	3	6	2.2	3.3
8	2.0	2.0 2.8	2.8	3.0	3.0	2	2	2.9	3.0
9	2.0	0.7 2.8	1.6	2.0	2.8	2	6	2.5	2.8
10	3.5	2.8 7.0	6.3	2.5	2.6	4	5	2.2	2.7
AVG	2.3	1.4 4.0	3.0	1.7	3.2	2.0	4.7		
STD	1.9	1.1 3.3	2.6	1.5	0.8	1.6	1.8		
Section 2									
	С	NUMBER					IVE SP		
	0 .	4					AL SPE		
	1	0					IVE ME		
	2	0 0 to 3					W/Adve		
	3	0 40.09	र्ह				IVE FQ		
	4	2					W/Adve		
	5	. 3					IVE ME		
	6	0 4 to			3	.2	W/Adve	ntives	
	7	0 50.09	र्ह						
	8	1	_						
	9	0 8 to 10							
	10	0 10.09	Š						
Native	10	40.0%	Advent	ive	15 60	0.0%			
Tree	0	0.0%	Tree		0 ().0%			
Shrub	0	0.0%	Shrub		0 (0.0%			
W-Vine	0	0.0%	W-Vine		0 (0.0%			
H-Vine	0	0.0%	H-Vine		0 (0.0%			
P-Forb	5	20.0%	P-Forb		5 20).0%			
B-Forb	0	0.0%	B-Forb			2.0%			
A-Forb	1	4.0%	A-Forb	*	1 4	1.0%			
P-Grass	4	16.0%	P-Gras	s	5 20	0.0%			
A-Grass	0	0.0%	A-Gras	s		1.0%			
P-Sedge	. 0	0.0%	P-Sedg			0.0%			
A-Sedge	0	0.0%	A-Sedg	e	0 (0.0%			
0	^	0 00							

0.0%

Cryptogam

		PHYSIOGNOMIC	RELAT	[VE	IMPORTANCE	VALUES	
PH	YSIOGNOM	Y FI	RQ ·	COV	RFRQ	RCOV	RIV
Νt	P-Grass	:	L1	31	23.4	33.0	28.2
Ad	P-Grass	:	LO	26	21.3	27.7	24.5
Ad	P-Forb		9	13	19.1	13.8	16.5
Ad	B-Forb		6	10	12.8	10.6	11.7
Nt	P-Forb		6	9	12.8	9.6	11.2
Νt	A-Forb		3	3	6.4	3.2	4.8
Ad	A-Forb		1 .	1	2.1	1.1	1.6
δA	A-Grass		1	1	2.1	1.1	1.6

Section 3

	SPECIES	RELAT	IVE :	IMPOR?	TANCE	VALUES
SCIENTIFIC NAME		C	WETI	NESS	FRÇ	cov (
Elymus canadensis		4	FAC	_	4	. 14
MET TIOTIC ALBA		0	EVCI	т.	1	7

Elymus canadensis	4 FAC-	4	14	8.5	14.9	11(7
MELILOTUS ALBA	0 FACU	4	7	8.5	7.4	8.0
Bouteloua curtipendula	8 UPL	3	8	6.4	8.5	7.4
TRIFOLIUM PRATENSE	0 UPL	. 4	6	8.5	6.4	7.4
Andropogon gerardii	5 FAC-	١ 3	7	6.4	7.4	6.9
BROMUS INERMIS	0 UPL	2	7	4.3	7.4	5.9
DACTYLIS GLOMERATA	0 FACU	3	5	6.4	5.3	5.9
Ambrosia artemisiifolia elatior	0 FACU	3	3	6.4	3.2	4.8
FESTUCA ELATIOR	0 FACU+	2	5	4.3	5.3	4.8
POA PRATENSIS	0 FAC-	2	5	4.3	5.3	4.8
Aster pilosus	0 FACU+	2	4	4.3	4.3	4.3
CIRSIUM ARVENSE	0 UPL	2	3	4.3	3.2	3.7
AGROPYRON REPENS	0 FACU	1	4	2.1	4.3	3,2
Heliopsis helianthoides	5 UPL	1	2	2.1	2.1	2.1
MEDICAGO SATIVA	0 UPL	1	2	2.1 4	2.1	2.1
MELILOTUS OFFICINALIS	0 FACU	1	2	2.1	2.1	2.1
Panicum virgatum	5 FAC+	1	2	2.1	2.1	2.1
CONVOLVULUS ARVENSIS	0 UPL	1	1	2.1	1.1	1.6
CORONILLA VARIA	0 UPL	1	1	2.1	1.1	1.6
Eupatorium altissimum	0 [FACU]	1	1	2.1	1.1	1.6
HIBISCUS TRIONUM	0 UPL	1	1	2.1	1.1	1.6
LACTUCA SERRIOLA	0 FAC	1	1	2.1	1.1	1.6
Physalis subglabrata	0 UPL	1	1	2.1	1.1	1.6
Ratibida pinnata	4 UPL	1	1	2.1	1.1	1.6
SETARIA GLAUCA	0 FAC	1	1	2.1	1.1	1.6
		47	94			

RFRQ

RCOV

RIV

Section 4

ACRONYM	C SCIENTIFIC NAME	W WETNESS PHY	SIOGNOMY COMMON NAME
AGRREP	0 AGROPYRON REPENS	3 FACU Ad 1	P-Grass QUACK GRASS
AMBARE	O Ambrosia artemisiifolia elatior	3 FACU Nt 2	A-Forb COMMON RAGWEED
ANDGER	5 Andropogon gerardii	1 FAC- Nt 1	P-Grass BIG BLUESTEM GRASS
ASTPIL	0 Aster pilosus	2 FACU+ Nt 1	P-Forb HAIRY ASTER
BOUCUR	8 Bouteloua curtipendula	5 UPL Nt 1	P-Grass SIDE-OATS GRAMA
BROINE	0 BROMUS INERMIS	5 UPL Ad 1	P-Grass HUNGARIAN BROME
CIRARV	0 CIRSIUM ARVENSE	5 UPL Ad 1	P-Forb FIELD THISTLE
CONARV	0 CONVOLVULUS ARVENSIS	5 UPL Ad 1	P-Forb FIELD BINDWEED
CORVAR	0 CORONILLA VARIA	5 UPL Ad 1	P-Forb CROWN VETCH
DACGLO	0 DACTYLIS GLOMERATA	3 FACU Ad 1	P-Grass ORCHARD GRASS
ELYCAN	4 Elymus canadensis	1 FAC- Nt 1	P-Grass CANADA WILD RYE
EUPALT	0 Eupatorium altissimum	3 [FACU] Nt 1	P-Forb TALL BONESET
FESELA	0 FESTUCA ELATIOR	2 FACU+ Ad I	P-Grass TALL FESCUE
HELHEL	5 Heliopsis helianthoides	5 UPL Nt 1	P-Forb FALSE SUNFLOWER
HIBTRI	0 HIBISCUS TRIONUM	5 UPL Ad 1	A-Forb FLOWER-OF-AN-HOUR
LACSER	0 LACTUCA SERRIOLA	0 FAC Ad I	B-Forb PRICKLY LETTUCE
MEDSAT	0 MEDICAGO SATIVA	5 UPL Ad 1	P-Forb ALFALFA
MELALB	0 MELILOTUS ALBA	3 FACU Ad 1	B-Forb WHITE SWEET CLOVER

EIGHTH-YEAR RESTORATION MONITORING REPORT – APPENDIX II BLACKWELL PRAIRIE LANDFILL RESTORATION – WARRENVILLE, IL CONSERVATION DESIGN FORUM (PROJECT NO. 08035.00)

MELLOF PANVIR PHYSUB POAPRA RATPIN SETGLA TRIPRA	0 MELILOTUS OFFICINALIS 5 Panicum virgatum 0 Physalis subglabrata 0 POA PRATENSIS 4 Ratibida pinnata 0 SETARIA GLAUCA 0 TRIFOLIUM PRATENSE	·	-1 5 1 5	FAC	Ad B-Forb Nt P-Grass Nt P-Forb Ad P-Grass Nt P-Forb Ad A-Grass Ad P-Forb	TALL GROUN KENTUCKY N YELLOW CON	ASS ND CHERRY BLUE GRASS NEFLOWER KTAIL
TRANSECT	STRING	BOUCUR	1			SETGLA	1
>		MELALB	3			TRIPRA	1
QUAD	1	TRIPRA	1			>	
ACRONYM	COVER	>				QUAD	8
BROINE	5	QUAD	5			ACRONYM	COVER
>		ACRONYM	COVER			ELYCAN	5
QUAD	2	ASTPIL	3			PHYSUB	1
ACRONYM	COVER	BOUCUR	3			>	
ANDGER	. 3	DACGLO	2			QUAD	9
BROINE	2 .	ELYCAN	1			ACRONYM	COVER
CIRARV	1	RATPIN	1			AMBARE	1
FESELA	2	TRIPRA	2			CONARV	1
PANVIR	2	>				ELYCAN	4
POAPRA	2	QUAD	6			HIBTRI	1
>		ACRONYM	COVER			LACSER	1
QUAD	3	DACGLO	2			MELLOF	2
ACRONYM	COVER	FESELA	3			•	
AGRREP	4	MEDSAT	. 2			>	
CIRARV	2	MELALB	2			QUAD	10
CORVAR	1	TRIPRA	2			ACRONYM	COVER
MELALB	1	> .		•		AMBARE	1
POAPRA	3	QUAD	7			ANDGER	1
>		ACRONYM	COVER		,	ELYCAN	4
QUAD	4	AMBARE	1			HELHEL	2
ACRONYM	COVER	BOUCUR	4			MELALB	1
ANDGER	3	DACGLO	1				
ASTPIL	1	EUPALT	1				

Site:

Blackwell Landfill Prairie - Transect 2

Locale:

Warrenville - DuPage County, IL September 11, 2008

Date:

By:

Conservation Design Forum (Johnson)

Section 1											
0		/		TRANSI							/- >
QUAD	MC	W/Ad	FQI	W/Ad	MW	W/A		NS	TS	MW SEQ	W/Ad
1	4.0	1.3	4.0	2.3	3.0	4.		1	3	3.0	3.3
2	1.0	0.3	1.0	0.5	3.0	2.		1	4	3.3	3.7
3	2.5	1.3	3.5	2.5	4.0	4.		2	4	3.4	3.6
4	1.7	0.8	2.9		3.3	4.		3	6	3.4	4.0
5	1.7	1.0	2.9	2.2	3.0	3.		3	5	3.8	3.5
6	0.0	0.0	0.0	0.0	5.0	2.	8	1	5	3.7	2.5
7	1.0	0.3	1.0	0.5	3.0	1.	3	1	4	3.3	2.1
8	0.0	0.0	0.0	0.0	2.0	2.	4	1	5	1.7	2.9
9	0.0	0.0	0.0	0.0	0.0	5.	0	0	2	0.7	4.1 ,
10	0.0	0.0	0.0	0.0	0.0	5.	0	0	2	0.0	5.0
										_	
AVG	1.2	0.5	1.5	1.0	2.6	3.	5 1.	. 3	4.0		
STD	1.3	0.6	1.6	1.1	1.6	1.	3 1.	. 1	1.3		•
Section 2											
<u> </u>	C	NUMBE	R				6 N	TTA	JE SPI	ECTES	
	0	3							SPE		
	1	1							JE ME		
	2		0 to 3				0.6			ntives	
	3	0	66.7%						Æ FQ		
	4	2				,	2.3			ntives	
	5 .	0							JE ME		
	6		4 to 7				2.4			ntives	
	7	0	33.3%					•			
	8	0									
	9	_	to 10								
	10	0	0.0%								
		· ·	0.00								
Native	6	40.0		Adventive)	9	60.08				
Tree	0	0.0		Tree		0	0.0%				
Shrub	0	0.0		Shrub		0	0.0%				
W-Vine	0	,0.0		W-Vine		0	0.0%				
H-Vine	0	0.0	ક	H-Vine		0	0.0%	5			
P-Forb	5	33.3	ક	P-Forb		3	20.0%	ទី			
B-Forb	1	6.7	ક	B-Forb		2	13.3%	វ័			
A-Forb	0	0.0	ક	A-Forb		2	13.3%	5			
P-Grass	0	0.0	ફ	P-Grass		2	13.3%	5			
A-Grass	0	0.0	ક	A-Grass		0	0.0%	វ័			
P-Sedge	0	0.0		P-Sedge		0	0.08				
A-Sedge	0	0.0		A-Sedge		0	0.0%				
Cryptogam	0	0.0		J -							
1 E 3	-		•								

PHYSIOGNOMIC RELATIVE IMPORTANCE VALUES

PHYSIOGNOMY	FRQ	COV	RFRQ	RCOV	RIV
Ad P-Grass	10	34	25.0	38.2	31.6
Ad P-Forb	12	23	30.0	25.8	27.9
Nt P-Forb	12	23	30.0	25.8	27.9
Ad B-Forb	3	3	7.5	3.4	5.4
Ad A-Forb	2	4	5.0	4.5	4.7
Nt B-Forb	. 1	2	2.5	2.2	2.4

Section 3

SPECIES RELATIVE IMPORTANCE VALUES

SCIENTIFIC NAME	C	WETNESS	FRO	COV	RFRO	RCOV	RIV
BROMUS INERMIS	0		7	27	17.5	30.3	23.9
	-		•				
CORONILLA VARIA	0	\mathtt{UPL}	8	17	20.0	19.1	19.6
Solidago altissima	1	FACU	5	13	12.5	14.6	13.6
AGROPYRON REPENS	0	FACU	3	7	7.5	7.9	7.7
Ratibida pinnata	4	UPL	3	5	7.5	5.6	6.6
NEPETA CATARIA	0	FAC-	3	4	7.5	4.5	6.0
ALLIARIA PETIOLATA	0	FAC	2	2	5.0	2.2	3.6
Aster pilosus	0	FACU+	2	2	5.0	2.2	3.6
ATRIPLEX PATULA	0	FACW-	1	2	2.5	2.2	2.4
Erigeron annuus	0	FAC-	1	2	2.5	2.2	2.4
Monarda fistulosa	4	FACU	1	2	2.5	2.2	2.4
POLYGONUM CONVOLVULUS `	0	FAC-	1	2	2.5	2.2	2.4
RUMEX CRISPUS	0	FAC+	1	2	2.5	2.2	2.4
DAUCUS CAROTA	0	UPL	1	1	2.5	1.1	1.8
Physalis subglabrata	0	UPL	1	1	2.5	1.1	1.8
			40	89			

Section 4

A	CRONYM	С	SCIENTIFIC NAME	W	WETNESS	PHYS	SIOGNOMY	COMMON NAME	
A	GRREP	0	AGROPYRON REPENS	3	FACU	Ad I	P-Grass	QUACK GRASS	
AI	LLPET	0	ALLIARIA PETIOLATA	0	FAC	Ad I	3-Forb	GARLIC MUSTARD	
AS	STPIL	0	Aster pilosus	2	FACU+	Nt I	P-Forb	HAIRY ASTER	
A.	TRPAT	0	ATRIPLEX PATULA	-2	FACW-	Ad A	A-Forb	COMMON ORACH	
BI	ROINE	0	BROMUS INERMIS	5	UPL	Ad I	P-Grass	HUNGARIAN BROME	
CC	ORVAR	Ö	CORONILLA VARIA •	5	UPL	Ad I	P-Forb	CROWN VETCH	
DI	AUCAR	0	DAUCUS CAROTA	5	UPL	Ad I	3-Forb	QUEEN ANNE'S LACE	
EF	RIANS	0	Erigeron annuus	1	FAC-	Nt I	3-Forb	ANNUAL FLEABANE	
MO	ONFIS	4	Monarda fistulosa	3	FACU	Nt I	P-Forb	WILD BERGAMOT	
N	EPCAT	0	NEPETA CATARIA	1	FAC-	Ad I	P-Forb	CATNIP	
PF	IYSUB	0	Physalis subglabrata	5	UPL	Nt I	P-Forb	TALL GROUND CHERRY	
P	DLCON	0	POLYGONUM CONVOLVULUS	1	FAC-	Ad A	A-Forb	BLACK BINDWEED	
R.	ATPIN	4	Ratibida pinnata	5	UPL	Nt I	P-Forb	YELLOW CONEFLOWER	
R	JMCRI	0	RUMEX CRISPUS	-1	FAC+	Ad I	P-Forb	CURLY DOCK	
SC	LALT	1	Solidago altissima	3	FACU	Nt I	P-Forb	TALL GOLDENROD	

TRANSECT	STRING	ASTPIL	1	ACRONYM	COVER
>		BROINE	2	AGRREP	3
QUAD	1	CORVAR	2	ATRPAT	2
ACRONYM	COVER	DAUCAR	1	POLCON	2
BROINE	4	RATPIN	. 1	SOLALT	4
CORVAR	2	SOLALT	3	>	
MONFIS	2	>		QUAD	8
>		QUAD	5	ACRONYM	COVER
QUAD	2	ACRONYM	COVER	ASTPIL	1
ACRONYM	COVER	AGRREP	2	BROINE	3
ALLPET	1	CORVAR	2	CORVAR	3
BROINE	5	ERIANS	2	NEPCAT	1
NEPCAT	1	RATPIN	2	RUMCRI	2
SOLALT	1	SOLALT	3	>	
>		>	•	QUAD	9
QUAD	3	QUAD	6	ACRONYM	COVER
ACRONYM	COVER	ACRONYM	COVER	BROINE	4
BROINE	4	AGRREP	2	CORVAR	3
CORVAR	1	ALLPET	1	> '	
RATPIN	2	CORVAR	3	QUAD	10
SOLALT	2	NEPCAT	2	ACRONYM	COVER
>		PHYSUB	1	BROINE	5
QUAD	4	>		CORVAR	1
ACRONYM	COVER	QUAD	7		

Site: Blackwell Landfill Prairie - Transect 3

Warrenville - DuPage County, IL Locale:

September 11, 2008 Date:

Conservation Design Forum (Johnson) By:

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				TRAN	SECT DA	ATA, QUA	ADRAT			
QUAD	MC	W/Ad	FQI	W/Ad	MW	W/Ad	NS	TS	MW SEQ	W/Ad
1	3.3	2.6	6.5	5.8	0.8	1.0	4	5	1.2	1.5
2	3.5	2.8	7.0	6.3	1.8	2.0	4	5	1.0	1.3
3	3.0	2.1	6.7	5.7	0.4	0.9	5	7	1.2	1.5
4	3.2	3.2	7.2	7.2	1.6	1.6	5	5	0.7	1.4
5	2.5	1.0	3.5	2.2	0.0	1.8	2	5	1.7	2.3
6	4.5	3.6	9.0	8.0	3.5	3.4	4	5	1.8	2.5
7	4.6	3.8	10.3	9.4	1.8	2.3	5	6	3.0	3.1
8	5.0	4.4	13.2	12.4	3.7	3.6	7	8	3.3	3.4
9	5.8	3.8	11.5	9.4	4.3	4.2	4	6	4.3	4.0
10	7.0	4.7	9.9	8.1	5.0	4.3	2	3	4.6	4.2
AVG	4.2	3.2	8.5	7.4	2.3	2.5	4.2	5.5		
STD	1.4	1.1	2.8	2.7	1.7	1.3	1.5	1.4		

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20	\sim \pm	_	on	-2
	-		-11	_

Section 2					
	С	NUMBER			20 NATIVE SPECIES
	0	3			27 TOTAL SPECIES
	1	2			4.0 NATIVE MEAN C
	2	0 0 to 3	,		3.0 W/Adventives
	3	0 25.0%	•		17.9 NATIVE FQI
	4	4			15.4 W/Adventives
	5	9			2.6 NATIVE MEAN W
	6	0 4 to 7	•		2.7 W/Adventives
	7	0 65.0%	f		
	8	1			
	9	1 8 to 10)		
	10	0 10.0%	r		
Native	20	74.1%	Adventive	7	25.9%
Tree	0	0.0%	Tree	0	0.0%
Shrub	0	0.0%	Shrub	0	0.0%
W-Vine	0	0.0%	W-Vine	0	0.0%
H-Vine	0	0.0%	H-Vine	0	0.0%
P-Forb	12	44.4%	P-Forb	3	11.1%
B-Forb	0	0.0%	B-Forb	1	3.7%
A-Forb	2	7.4%	A-Forb	0	0.0%
P-Grass	6	22.2%	P-Grass	2	7.4%
A-Grass	0	0.0%	A-Grass	1	3.7%
P-Sedge	0	0.0%	P-Sedge	0	0.0%
A-Sedge	0	0.0%	A-Sedge	0	0.0%
Cryptogam	0	0.0%			

PHYSTOGNOMIC	DELATIO	TMDODTANCE	VALUES

PHYSIOGNOMY	HYSIOGNOMY FRQ		RFRQ	RCOV	RIV
Nt P-Forb	21	43	38.2	37.7	38.0
Nt P-Grass	19	46	34.5	40.4	37.4
Ad P-Grass	8	17	14.5	14.9	14.7
Ad P-Forb	3	. 4	5.5	3.5	4.5
Nt A-Forb	2	2	3.6	1.8	2.7
Ad A-Grass	` 1	1	1.8	0.9	1.3
Ad B-Forb	1 .	1	1.8	0.9	1.3

Section 3

SPECIES RELATIVE IMPORTANCE VALUES

	SPEC	TES RELAT	I VE IMPO	RIANCE V	ALUES			
SCI	ENTIFIC NAME	C	WETNESS	FRQ	COV	RFRQ	RCOV	RIV
AGF	OPYRON REPENS	0.	FACU	7	15	12.7	13.2	12.9
And	lropogon gerardii	5	FAC-	5	12	9.1	10.5	9.8
Par	nicum virgatum	5	FAC+	5	12	9.1	10.5	9.8
Bou	teloua curtipendula	8	UPL	4	9	7.3	7.9	7.6
Sol	idago altissima	1	FACU	3	10	5.5	8.8	7.1
Ast	er pilosus `	0	FACU+	4	7	7.3	6.1	6.7
Rat	ibida pinnata	4	UPL	3	6	5.5	5.3	5.4
Anc	iropogon scoparius	5	FACU-	2	6	3.6	5.3	4.4
Hel	ianthus mollis	9	UPL	2	6	3.6	5.3	4.4
Ast	er novae-angliae	4	FACW	2	4	3.6	3.5	3.6
Ely	mus canadensis	4	FAC-	2	3	3.6	2.6	3.1
Sor	ghastrum nutans	5	FACU+	1	4	1.8	3.5	2.7
Sil	phium integrifolium	5	UPL	1	3	1.8	2.6	2.2
CIR	SIUM ARVENSE	, 0	UPL	1	2	1.8	1.8	1.8
	A PRATENSIS	0	FAC-	1	2	1.8	1.8	1.8
	idago rigida	4		1	2	1.8	1.8	1.8
	orosia artemisiifolia elat	ior 0	FACU	1	1.	1.8	0.9	1.3
	er ericoides	5	FACU-	1	1	1.8	0.9	1.3
	ONILLA VARIA	0	UPL	1	1	1.8	0.9	1.3
	SACUS LACINIATUS	0	UPL	1	1	1.8	0.9	1.3
Hel	iopsis helianthoides	5	UPL	1	1	1.8	0.9	1.3
NEI	PETA CATARIA	0	FAC-	1	1	1.8	0.9	1.3
	ygonum pensylvanicum	0	FACW+	1	1	1.8	0.9	1.3
Ruc	lbeckia hirta	1	FACU	1	1	1.8	0.9	1.3
SET	ARIA FABERI	0	FACU+	1	1	1.8	0.9	1.3
\$i1	phium laciniatum	5	UPL	1	1	1.8	0.9	1.3
Sil	phium terebinthinaceum	5	FACU	1	1	1.8	0.9	1.3
				55	114			

Section 4

ACRONYM	C SCIENTIFIC NAME	W WETNESS PHYSIOGNOMY COMMON NAME
AGRREP	0 AGROPYRON REPENS	3 FACU Ad P-Grass OUACK GRASS
AMBARE	0 Ambrosia artemisiifolia elatior	3 FACU Nt A-Forb COMMON RAGWEED
ANDGER	5 Andropogon gerardii	1 FAC- Nt P-Grass BIG BLUESTEM GRASS
ANDSCO	5 Andropogon scoparius	4 FACU- Nt P-Grass LITTLE BLUESTEM GRASS
ASTERI	5 Aster ericoides	4 FACU- Nt P-Forb HEATH ASTER
ASTNOV	4 Aster novae-angliae	-3 FACW Nt P-Forb NEW ENGLAND ASTER
ASTPIL	0 Aster pilosus	2 FACU+ Nt P-Forb HAIRY ASTER
BOUCUR	8 Bouteloua curtipendula	5 UPL Nt P-Grass SIDE-OATS GRAMA
CIRARV	0 CIRSIUM ARVENSE	5 UPL Ad P-Forb FIELD THISTLE
CORVAR	0 CORONILLA VARIA	5 UPL Ad P-Forb CROWN VETCH
DIPLAC	0 DIPSACUS LACINIATUS	5 UPL Ad B-Forb CUT-LEAVED TEASEL
ELYCAN	4 Elymus canadensis	1 FAC- Nt P-Grass CANADA WILD RYE
HELMOL	9 Helianthus mollis	5 UPL Nt P-Forb DOWNY SUNFLOWER
HELHEL	5 Heliopsis helianthoides	5 UPL Nt P-Forb FALSE SUNFLOWER
NEPCAT	O NEPETA CATARIA	1 FAC- Ad P-Forb CATNIP
PANVIR	5 Panicum virgatum	-1 FAC+ Nt P-Grass SWITCH GRASS

EIGHTH-YEAR RESTORATION MONITORING REPORT – APPENDIX II BLACKWELL PRAIRIE LANDFILL RESTORATION – WARRENVILLE, IL CONSERVATION DESIGN FORUM (PROJECT NO. 08035.00)

POAPRA	0 POA PRATENSIS		1	FAC-	Ad P-Grass	KENTUCKY I	BLUE GRASS
POLPEN	0 Polygonum pensylvanicum			FACW+	Nt A-Forb	PINKWEED	
RATPIN	4 Ratibida pinnata		5	UPL	Nt P-Forb	YELLOW COM	NEFLOWER
RUDHIR	1 Rudbeckia hirta	,	3	FACU	Nt P-Forb	BLACK-EYEI	SUSAN
SETFAB	0 SETARIA FABERI		2	FACU+	Ad A-Grass	GIANT FOX	rail .
SILINI	5 Silphium integrifolium		5	UPL	Nt P-Forb	ROSIN WEEL)
SILLAC	5 Silphium laciniatum		5	UPL	Nt P-Forb	COMPASS PI	
SILTER	5 Silphium terebinthinaceum		3	FACU	Nt P-Forb	PRAIRIE DO	
SOLALT	1 Solidago altissima		3		Nt P-Forb	TALL GOLD	
SOLRIG	4 Solidago rigida			FACU-	Nt P-Forb	STIFF GOLI	
SORNUT	5 Sorghastrum nutans			FACU+	Nt P-Grass	INDIAN GRA	
Boildio	5 Bolgiabolan Hadans		-	111001	110 1 01400	11101121 010	
TRANSECT S	STRING	ACRONYM	COVER			PANVIR	2
>		ANDGER	2			RUDHIR	1
QUAD	1	ASTPIL	2			>	
ACRONYM	COVER	PANVIR	1			QUAD	8
AMBARE	1	SILTER	1			ACRONYM	COVER
BOUCUR	1	SOLALT	4			AGRREP	1
PANVIR	4	>				ANDSCO	3
POLPEN	1	QUAD	5			ASTERI	1
SETFAB	1	ACRONYM	COVER			ASTPIL	2
>		AGRREP	2			BOUCUR	3
QUAD	2	ASTNOV	2			ELYCAN	1
ACRONYM	COVER	CORVAR	1			HELMOL	3
AGRREP	2	POAPRA	2			RATPIN	2
ANDGER	2	SOLALT	4			>	
ASTPIL	1	>				QUAD	9
PANVIR	3	QUAD	6		•	ACRONYM	COVER
RATPIN	2	ACRONYM	COVER			AGRREP	2
>		AGRREP	2			BOUCUR	. 3
QUAD	3	ANDGER	3			CIRARV	2
ACRONYM	COVER	ANDSCO	3			HELHEL	1
AGRREP	2	RATPIN	2			SILINI	3
ANDGER	2	SOLRIG	2			SORNUT	4
ASTNOV	2	>				>	
ASTPIL	2	QUAD	7			QUAD	10
NEPCAT	1	ACRONYM	COVER		•	ACRONYM	COVER
PANVIR	2	ANDGER	3			AGRREP	4
SOLALT	2	BOUCUR	2			HELMOL	3
>		DIPLAC	1			SILLAC	1
QUAD	4	ELYCAN	2				

Blackwell Landfill Prairie - Transect 4
Warrenville - DuPage County, IL
September 11, 2008 Site:

Locale:

Date:

By: Conservation Design Forum (Johnson)

Section 1

01170	Ma	"דיד / די	TOT	TRANSE					mo.	N.67-2	ano	7:7 / T -3
QUAD 1	MC 5.0	W/Ad 2.0	FQI 7.1	W/Ad 4.5	MW 2.5	W/:	.6	NS 2	TS 5	MM	SEQ 1.2	W/Ad 2.8
2	0.0	0.0	0.0	0.0	0.0		.0	0	1		1.3	2.6
3	4.7	3.5	8.1	7.0	1.3		.8	3	4		0.7	1.8
4	3.7	3.7	6.4	6.4	0.7		. 7	3	3		1.9	2.1
5	4.1		11.0	10.3	3.7		. , . 9	7	8		2.3	2.3
6	4.8		11.8	11.8	2.5		.5	6	6		3.0	3.1
. 7	5.6		12.5	12.5	2.8		.8	5	5		2.4	2.4
8	4.7		11.4	11.4	2.0		. 0	6	6		2.6	2.6
9	4.6		10.3	10.3	3.0		.0	5	5		2.4	2.6
10	5.0		12.2	11.3	2.3		.7	6	7		2.7	2.9
AVG	4.2	3.7	9.1	8.5	2.1	2	. 5	4.3	5.0			
STD.	1.6	1.6	3.9	4.0	1.1			2.2	2.0			
Section 2												
Section 2	С	NUMBER					17	NA]	TIVE SPE	CIES	3	
	0	1							TAL SPEC			
	1	2							CIVE MEA			
	2	0 0	to 3				3.2		W/Adver	itive	es	
	3	0 :	17.6%				17.0	NAT	CIVE FQI			
	4	5					14.9		W/Adver	tive	es	
	5	8					2.9	NAT	CIVE MEA			
	6		to 7				3.0		W/Adver	tive	es	
	7		76.5%									
	8	1										
	9		to 10									
	10	0	5.9%									
Native	17	77.3%		Adventive		5	22.					
Tree	0	0.0%		Tree		0		0%				
Shrub	0	0.0%		Shrub		0		08			1	
W-Vine	0	0.0%		W-Vine		0		0%				
H-Vine	0	0.0%		H-Vine		0	0.	0%				
P-Forb	11	50.0%		P-Forb		1		5%				
B-Forb	0	0.0%		B-Forb		1		5%				
A-Forb	0	0.0%		A-Forb		1		5%				
P-Grass	6	27.3%		P-Grass		1		5%				
A-Grass	0	0.0%		A-Grass		1		5%				
P-Sedge	0	0.0%		P-Sedge		0		08				
A-Sedge	0	0.0%		A-Sedge		0	0.	0%			•	
Cryptogam	0	0.0%										

PHYSIOGNOMIC RELATIVE IMPORTANCE VALUES

PHYSIOGNOMY	FRQ	COV	RFRQ	RCOV	RIV
Nt P-Grass	26	75	52.0	61.5	56.7
Nt P-Forb	17	32	34.0	26.2	30.1
Ad P-Grass	2	8	4.0	6.6	5.3
Ad P-Forb	2	3	4.0	2.5	3.2
Ad A-Grass	1	2	2.0	1.6	1.8
Ad A-Forb	1	1	2.0	0.8	1.4
Ad B-Forb	1	1	2.0	0.8	1.4

Section 3

SPECIES RELATIVE IMPORTANCE VALUES

	DIECTED KEEM	TAR TIMEOR	CITATOL VI	2000			
SCIENTIFIC NAME	. C	WETNESS	FRQ	COV	RFRQ	RCOV	RIV
Panicum virgatum	5	FAC+	7	18	14.0	14.8	14.4
Andropogon scoparius	5	FACU-	6	18	12.0	14.8	13.4
Andropogon gerardii	5	FAC-	4	14	8.0	11.5	9.7
Sorghastrum nutans	5	FACU+	4	12	8.0	9.8	8.9
Bouteloua curtipendula	8	UPL	4	10	8.0	8.2	8.1
AGROPYRON REPENS	0	FACU	2	8	4.0	6.6	5.3
Monarda fistulosa	4	FACU	3	5	6.0	4.1	5.0
Solidago altissima	1	FACU	2	7	4.0	5.7	4.9
Silphium laciniatum	. 5	UPL	2	5	4.0	4.1	4.0
CIRSIUM ARVENSE	0	UPL	2	3	4.0	2.5	3.2
Coreopsis tripteris	5	FAC	2	3	4.0	2.5	3.2
Ratibida pinnata	4	UPL	2	3	4.0	2.5	3.2
Elymus canadensis	4	FAC-	1	3	2.0	2.5	2.2
Desmodium canadense	4	FAC-	1	2	2.0	1.6	1.8
SETARIA FABERI	0	FACU+	1	2	2.0	1.6	1.8
Silphium integrifolium	5	UPL	1	2	2.0	1.6	1.8
Solidago rigida	4	FACU-	1	2	2.0	1.6	1.8
Asclepias verticillata	1	UPL	_ 1	1	2.0	0.8	1.4
Aster pilosus	0	FACU+	1	1	2.0	0.8	1.4
DAUCUS CAROTA	0	UPL	1	1	2.0	0.8	1.4
Heliopsis helianthoides	5	UPL	1	1	2.0	0.8	1.4
POLYGONUM PERSICARIA	0	[FAC-]	1	1	2.0	0.8	1.4
			50	122			

Section 4

ACRONYM	C SCIENTIFIC NAME	W WETNESS PHYSIOGNOMY COMMON NAME
AGRREP	0 AGROPYRON REPENS	3 FACU Ad P-Grass QUACK GRASS
ANDGER	5 Andropogon gerardii	1 FAC- Nt P-Grass BIG BLUESTEM GRASS
ANDSCO	5 Andropogon scoparius	4 FACU- Nt P-Grass LITTLE BLUESTEM GRASS
ASCVER	1 Asclepias verticillata	5 UPL Nt P-Forb WHORLED MILKWEED
ASTPIL	0 Aster pilosus	2 FACU+ Nt P-Forb HAIRY ASTER
BOUCUR	8 Bouteloua curtipendula	5 UPL Nt P-Grass SIDE-OATS GRAMA
CIRARV	0 CIRSIUM ARVENSE	5 UPL Ad P-Forb FIELD THISTLE
CORTRP	5 Coreopsis tripteris	0 FAC Nt P-Forb TALL COREOPSIS
DAUCAR	0 DAUCUS CAROTA	5 UPL Ad B-Forb QUEEN ANNE'S LACE
DESCAA	4 Desmodium canadense	1 FAC- Nt P-Forb SHOWY TICK TREFOIL
ELYCAN	4 Elymus canadensis	1 FAC- Nt P-Grass CANADA WILD RYE
HELHEL	5 Heliopsis helianthoides	5 UPL Nt P-Forb FALSE SUNFLOWER
MONFIS	4 Monarda fistulosa	3 FACU Nt P-Forb WILD BERGAMOT
PANVIR	5 Panicum virgatum	-1 FAC+ Nt P-Grass SWITCH GRASS
POLPER	0 POLYGONUM PERSICARIA	1 [FAC-] Ad A-Forb LADY'S THUMB
RATPIN	4 Ratibida pinnata	5 UPL Nt P-Forb YELLOW CONEFLOWER
SETFAB	O SETARIA FABERI	2 FACU+ Ad A-Grass GIANT FOXTAIL
SILINI	5 Silphium integrifolium	5 UPL Nt P-Forb ROSIN WEED
SILLAC	5 Silphium laciniatum	5 UPL Nt P-Forb COMPASS PLANT
SOLALT	1 Solidago altissima	3 FACU Nt PForb TALL GOLDENROD
SOLRIG	4 Solidago rigida '	4 FACU- \ Nt P-Forb STIFF GOLDENROD

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SORNUT.	5 Sorgnastrum nutans		2 FACU+	Nt P-Grass I	NDIAN G	RASS
TRANSECT S	STRING	ACRONYM	COVER		QUAD	8
>	•	ANDSCO	2	AC	RONYM	COVER
QUAD	1	ASCVER	1	AN	DSCO	3
ACRONYM	COVER	BOUCUR	2	AS	TPIL	1
ANDGER	4	DAUCAR	1	BC	UCUR	3
ANDSCO	4	HELHEL	1	CC	RTRP	1
CIRARV	1	PANVIR :	3	PA	NVIR	2
POLPER	1	RATPIN	1	SC	RNUT	3
SETFAB	2	SOLALT	3	>		
>		>			QUAD	9
QUAD	2	QUAD	6	AC	RONYM	COVER
ACRONYM	COVER	ACRONYM	COVER	AN	DGER	3
AGRREP	5			· AN	DSCO	3
>		ANDGER	4	MC	NFIS	3
QUAD	3	MONFIS	1	RA	TPIN	2
ACRONYM	COVER	PANVIR	2	SO	RNUT	3
AGRREP	3	SILINI	2	>		
ANDSCO	3	SILLAC	2		QUAD	10
ELYCAN	3	SORNUT	4 ·	AC	RONYM	COVER
PANVIR	3	>			UCUR	2
>		QUAD	7	CI	RARV	2
QUAD	4	ACRONYM	COVER	DE	SCAA	2
ACRONYM	COVER	ANDGER	3	MO	NFIS	1
CORTRP	2	ANDSCO	3	_	NVIR	2
PANVIR	4	BOUCUR	3	_	LRIG	2
SOLALT	4	PANVIR	2	SC	RNUT	2
>	<u>.</u>	SILLAC	3			
DAUQ	5	>				

APPENDIX III

TRANSECT RELATIVE IMPORTANCE VALUES

Tables A—D included in this appendix summarize the relative importance values (RIV) for the top 50% of species from each transect. For comparative purposes these same data from past restoration monitoring are included in the tables. Brackets ([]) indicate the species was recorded in the sampling but not in the top 50% for that year, and a dash (-) indicates that it was not recorded during the sampling event. Following each native species is its assigned C value (in parenthesis). Adventive species are in ALL CAPS. Species followed by an asterisk (*) were introduced to the site as part of the initial prairie seed installation in the summer of 2001, and from subsequent reseeding efforts in 2002, 2003, and 2004.

[NOTE: These tables were included in the narrative section in earlier reports and not in a separate appendix.]

<u>Table A. Transect 1 species relative importance values</u>

Transect 1	RELATIVE IMPORTANCE VALUE							
SPECIES (C VALUE)	2001	2002	2003	2004	2005	2006	2007	2008
Elymus canadensis (4)*	-	_	-	7.8	13.3	10.9	10.5	11.7
MELILOTUS ALBA	[2.0]	22.7	[1.3]	6.1	-	[3.0]	[3.9]	8.0
Bouteloua curtipendula (8)*	[1.5]	14.8	11.7	19.3	11.9	9.7	11.4	7.4
TRIFOLIUM PRATENSE	-	-	8.8	-	[1.8]	-	-	7.4
Andropogon gerardii (5)*	-	-	[3.1]	[1.6]	-	[3.6]	[3.0]	6.9
BROMUS INERMIS		-	-	6.1	[3.9]	16.1	[2.6]	5.9
DACTYLUS GLOMERATA	-	-	[2.6]	9.6	[4.4]	[5.1]	[1:3]	5.9
FESTUCA ELATIOR	[2.0]	7.1	[3.6]	_	[9.4]	-	8.3	[4.8]
Ambrosia artemisiifolia (0)	-	12.3	6.7	6.1	12.6	6.0	6.1	[4.8]
CIRSIUM ARVENSE	-	-	-	[3.3]	_	[3.0]	5.6	[3.7]
POA PRATENSIS	-	-	[2.8]	[2.3]	-	[3.6]	5.3	[4.8]
Andropogon scoparius (5)*	-	[1.6]	[1.3]	[3.9]	[1.8]	[4.7]	5.2	-
Aster pilosus (0)	-	[2.0]	-	[5.5]	[1.8]	6.2	[1.3]	[4.3]
Panicum virgatum (5)*	-	· -	[3.1]	[2.3]	[4.4]	5.6	[2.6]	[2.1]
HIBISCUS TRIONUM	9.0	[2.0]	8.0	[3.3]	13.5	[1.5]	[1.3]	[1.6]
Echinochloa crusgalli (0)	22.1	[5.2]	12.2	-	-	-	-	-
SETARIA FABERI	-	[1.6]	5.7	-	[3.2]	-	-	-
DIGITARIA ISCHAEMUM	24.4	-	-	-	-	-	-	-

<u>Table B. Transect 2 species relative importance values</u>

Transect 2	RELATIVE IMPORTANCE VALUE													
SPECIES (C VALUE)	2001	2002	2003	2004	2005	2006	2007	2008						
BROMUS INERMIS	11.1	[2.5]	7.9	7.2	10,2	27.9	12.3	23.9						
CORONILLA VARIA	25.5	19.7	14.1	13.2	11.7	14.7	27.4	19.6						
Solidago altissima (1)	-	[4.4]	4.4	[1.7]	[1.6]	[2.4]	15.7	13.6						
NEPETA CATARIA	[1.6]	[3.1]	[4.0]	[2.4]	[1.6]	9.4	[3.9]	[6.0]						
ALLIARIA PETIOLATA	9.1	6.9	8.8	7.0	-	[1.7]	[3.4]	[3.6]						
Aster pilosus (0)	-	-	[4.0]	6.7	[3.2]	[5.8]	[3.4]	[3.6]						
AGROPYRON REPENS	-	-	-	4.6	10.2	[2.4]	[1.7]	[7.7]						
Panicum virgatum (5)*	-	5.6	5.3	[2.2]	[3.2]	-	[1.7]	-						
Bouteloua curtipendula (8)*	[2.7]	9.4	4.8	[1.7]	[4.5]	[2.4]	[1.7]	_						
ATRIPLEX PATULA	5.9	-	-	[4.1]	[4.5]	-	[1.7]	[2.4]						
Ambrosia artemisiifolia (0)	-	[2.5]	[2.6]	[1.7]	6.0	[3.0]	[1.7]	-						
LACTUCA SERRIOLA	-	-	[3.5]	8.9	5.4	[1.7]	[1.7]	-						
SOIL	[2.1]	11.0	-	-	7.3	-	-	-						
Erigeron canadensis (0)	-	-	-	4.6	[1.6]	[1.7]	-	_						
LEPIDIUM CAMPESTRE	-	-	6.1	-	_	-	-	-						

<u>Table C. Transect 3 species relative importance values</u>

Transect 3			Rel	ATIVE IMPO	RTANCE VA	LUE		
SPECIES (C VALUE)	2001	2002	2003	2004	2005	2006	2007	2008
CORONILLA VARIA	-	[1.5]	-	[1.4]	-	7.4	9.9	[1.3]
AGROPYRON REPENS	_	-	-	11.7	10.1	10.5	8.0	12.9
Andropogon gerardii (5)*	-	[1.9]	[1.8]	- ,	[4.3]	[1.4]	[4.3]	9.8
Panicum virgatum (5)*	_	[5.6]	[9.6]	[3.9]	10.7	7.4	8.3	9.8
Bouteloua curtipendula (8)*	-	[6.8]	12.4	7.3	8.5	[2.0]	5.2	7.6
Solidago altissima (1)	_	-	· -	-	-	[2.9]	7.0	7.1
Aster pilosus (0)	[1.3]	-	-	[5.8]	10.1	9.2	[1.2]	6.7
POA PRATENSIS	_	[4.9]	12.9	16.7	[4.3]	[5.4]	5.6	[1.8]
Aster novae-angliae (4)*	-	-	-	[2.4]	[1.5]	[4.3]	5.5	[3.6]
Ambrosia artemisiifolia (0)	[2.5]	7.2	11.9	7.2	5.2	-	5.0	[1.3]
Andropogon scoparius (5)*	-	-	-	[1.4]	5.2	6.5	[3.6]	[4.4]
Ambrosia trifida (0)	4	[6.8]	13.2	[3.9]	7.7	-	[1.2]	-
BROMUS TECTORUM	-	-	-	7.8	[3.1]	-	[1.2]	-
BROMUS INERMIS	-	-	-	-	-	9.6	-	-
Solidago canadensis (1)	[1.3]	-	-	[3.4]	5.2	[1.4]	-	-
SETARIA FABERI	21.9	16.7	[2.3]	[1.4]	-	[1.4]	-	[1.3]
Echinochloa crusgalli (0)	21.9	14.0	-	-	•	-	-	-
Polygonum pensylvanicum (0)	7.7	12.5	-	-	-	[2.5]	-	[1.3]

<u>Table D. Transect 4 species relative importance values</u>

Transect 4	RELATIVE IMPORTANCE VALUE													
Species (C Value)	2001	2002	2003	2004	2005	2006	2007	2008						
Panicum virgatum (5)*	-	5.2	[3.4]	9.4	9.2	12.0	12.7	14.4						
Andropogon scoparius (5)*	-	[1.5]	5.6	17.1	12.6	13.6	18.6	13.4						
Andropogon gerardii (5)*	-	[3.0]	7.2	[1.9]	11.4	-	[6.8]	9.7						
Sorghastrum nutans (5)*	-	[1.8]	[2.4]	11.3	[4.4]	15.4	15.0	8.9						
Bouteloua curtipendula (8)*	-	14.4	7.3	10.3	15.4	8.2	7.3	8.1						
CIRSIUM ARVENSE	-	[3.3]	4.4	[4.1]	-	[1.4]	[4.1]	[3.2]						
CHENOPODIUM ALBUM	7.6	-	-	-		-	[2.7]							
SETARIA FABERI	-	14.7	[3.8]	[1.4]	-	-	[2.7]	[1.8]						
ABUTILON THEOPHRASTI	8.3	[2.6]	_	-	-	-	[1.4]	-						
Heliopsis helianthoides (5)*	-	[2.2]	4.4	[3.3]	[1.6]	[2.8]	[1.4]	[1.4]						
AGROPYRON REPENS	-	-	-	[5.7]	5.6	7.7	-	[5.3]						
Aster pilosus (0)	-	-	[1.0]	7.5	[4.4]	[2.8]	-	[1.4]						
Rudbeckia hirta (1)*	[1.1]	4.4	5.8	[3.3]	-	<u>-</u>	-	-						
Echinochloa crusgalli (0)	11.3	7.4	-	-	-	-	-	-						
LOLIUM MULTIFLORUM	14.7	[1.5]	5.0	-	-	-	-	-						
Polygonum pensylvanicum (0)	12.1	-	[1.0]	-	-	[1.9]	-	-						
SETARIA GLAUCA	[4.5]	6.3	[0.1]	[1.4]	[1.6]	-	-	-						
LACTUCA SERRIOLA	-	[3.3]	10.5	-	-	-	-	-						

APPENDIX IV

SEEDED SPECIES RECRUITMENT

An alphabetical list of the 37 native species that were seeded as part of the prairie landscape installation in May and June of 2001 is presented in the tables on the following two pages. Transects 1 and 2 are on the first page and Transects 3 and 4 are on the second. Each species is listed along with its C value (in parenthesis). If the species was recorded from the site during the September 2007 monitoring event it is indicated with a "Y", and if not it is indicated with a "N". The columns to the right summarize the RIV of each species if recorded during the transect sampling; these same data from the previous monitoring years are shown for comparison.

Twenty-five (25) of these 37 seeded species were recorded from the site during the monitoring event in September of 2007. See the report for more information.

SEEDED SPECIES								RELATIV	Е ІМРО	RTANCE	VALUE	S						
C VALUE				TR	ANSEC	1							TF	RANSEC	т 2			
	'01	'02	'03	'04	'05	,06	'07	'08	'09	'01	'02	,03	'04	'05	,06	'07	'08	'09
Andropogon gerardii (5)Y	_	-	3.1	1.6	-	3.6	3.0	6.9		١.	-	-	1.7	-	-	2.2	-	,
Andropogon scoparius (5)Y	_	1.6	1.3	3.9	1.8	4.7	5.2	-		-	-	-	1.7	-	-	2.2	-	
Aquilegia canadensis (6)N	-	-		-	-	-	-	-		-	-	-	-	-	-	-	-	I
Aster azureus (8)N		-	-	-	-	-	-	-			-	-	-	-	-	-	-	
Aster ericoides (5)Y	- "	-	-	-	-	-	-	-		-	-	-	-	-	-		-	l
Aster laevis (9)N	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	
Aster novae-angliae (4)Y	-	-	-	-	-	-	-	-		-	-	-	-	-	1.7	-	-	
Astragalus canadensis (10)N	-	-	-	-	-	-	-	-		-	-	-	-	· -	-	-	-	
Baptisia leucantha (8)N	-	-	-	-		-	-	-			-	-	-	-	-	-	-	
Bouteloua curtipendula (8)Y	1.5	14.8	11.7	19.3	11.9	9.7	11.4	7.4		2.7	9.4	4.8	1.7	4.5	2.4	1.7	-	
Coreopsis palmata (6)N	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	
Coreopsis tripteris (5)Y	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	
Desmodium canadense (4)Y	_	-	-	_	-	-	-	-		-	-	-	-	-	-	-	-	
Echinacea purpurea (3)Y	1.5	-	1.3	-	-	-	-	-		2.1	-	-	-	-	-	-	-	
Elymus canadensis (4)Y	_	-	-	7.8	13.3	10.9	10.5	11.7			-	-	1.2	1.6	-	-	-	
Eryngium yuccifolium (9)Y	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	
Helianthus mollis (9)Y	_	-	-	-	-	-	-	_		-	-	-	-	-	-	-	-	
Helianthus rigidus (8)N	-	-	-	_	-	-	-			-	-	-	_	_	-	-	-	† - · · · ·
Heliopsis helianthoides (5)Y	-	1.6	1.8	-	-	3.6	4.3	2.1		1.6	-	-	-	-	-	-	-	
Lespedeza capitata (4)N	-	-	-	_	-	-	<u>-</u>	-		-	-	-	-	-	-	-	-	
Liatris spicata (6)N	-	-	-	_	-	-	_	-		-	-	_	-	-	-	-	-	
Monarda fistulosa (4)Y	_	-		3.9	1.8	-	-	-		1.6	-	1.8	-	-	1.7	3.4	2.4	
Panicum virgatum (5)Y	-	-	3.1	2.3	4.4	5.6	2.6	2.1		-	5.6	5.3	2.2	3.2	-	1.7	-	
Parthenium integrifolium (8)N	1	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	
Penstemon digitalis (4)Y	T	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	
Petalostemum purpureum (9)Y	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	
Physostegia virginiana (6)N	-	-	-	-	-	-	-	-		-		-	-	-	-	-	-	
Pycnanthemum virginianum (5)Y	_	-	-	-	-	-	-	-	· · · · · ·	-	-	-	-	-	-	-	-	· · · · · ·
Ratibida pinnata (4)Y	-	-		-	-	-	1.3	1.6	1	-	 -	-	1.2	3.2	-	1.7	6.6	
Rudbeckia hirta (1)Y	3.5	2.0	-	_	-	-	-	-		2.1	-	-	1.2	-	-	-	-	
Silphium integrifolium (5)Y		-	-	_		-	-			-		-	-	-	-	-	-	
Silphium laciniatum (5)Y	-	-	-	_	-	-	-	-		-	-	-	-	-	-	-	-	1
Silphium terebinthinaceum (5)Y	-	-	_	-	-	-	-	-		_	-	-	-	-	-	-	-	
Solidago graminifolia (4)Y	-	-		-	-	_	-	-		-	-	_	-	-	-	-	-	
Solidago nemoralis (4)N	<u> </u>	-	-	-	-	_	-	-		-	_	_	-	_	-	_	_	1
Solidago rigida (4)Y	_		-				-	-		-	-	-	-	1.6	-	-	_	
Sorghastrum nutans (5)Y	<u> </u>			_	-	1.5	2.2	_		1.6	5.0	2.6	1.2	-	-	1.7		

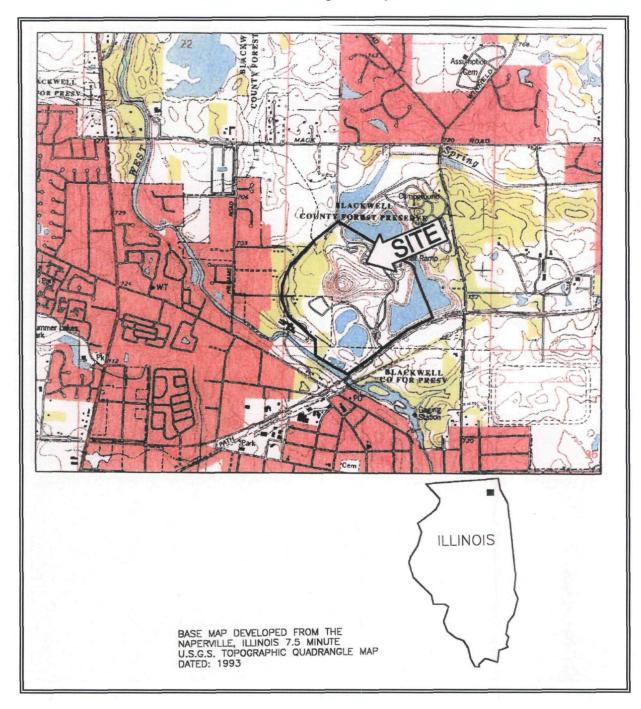
SEEDED SPECIES								RELATIV	'E IMPO	RTANCE	Values	5						
C VALUE				TR	ANSEC.	г3							TR	RANSEC	г 4		•	
	'01	'02	,03	'04	'05	'06	'07	'08	'09	'01	'02	,03	'04	'05	,06	'07	'08	'09
Andropogon gerardii (5)Y	-	1.9	1.8	-	4.3	1.4	4.3	9.8		-	3.0	7.2	1.9	11.4	-	6.8	9.7	
Andropogon scoparius (5)Y	-	-	-	1.4	5.2	6.5	3.6	4.4		-	1.5	5.6	17.1	12.6	13.6	18.6	13.4	
Aquilegia canadensis (6)N	-	-	-	-	-	-	-	-		-	-	-	-	-	-	· -	-	
Aster azureus (8)N	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	
Aster ericoides (5)Y	-	-	-	-	-	-	-	1.3		-	-	2.4	1.9	-	3.9	2.7	-	
Aster laevis (9)N	-	-	-	-	-	-	-	-			-	-	-	3.4	-	-	-	
Aster novae-angliae (4)Y	-	-	-	2.4	1.5	4.3	5.5	3.6		-	-	2.0	-	3.2	3.3	-	-	
Astragalus canadensis (10)N	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	
Baptisia leucantha (8)N	-	-	-	-		-	-	-		-	-	-	-	-	-	-	-	
Bouteloua curtipendula (8)Y	-	6.8	12.4	7.3	8.5	2.0	5.2	7.6		-	14.4	7.3	10.3	15.4	8.2	7.3	8.1	
Coreopsis palmata (6)N	-	-	-	-	-	-	,	-		-	-	-	-	-	-	-	-	
Coreopsis tripteris (5)Y	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	3.2	
Desmodium canadense (4)Y	-	-	-	-	-	1.4	-	-		-	-	-	-	-	1.4	1.4	1.8	
Echinacea purpurea (3)Y	-	-	-		-	-	-	-		-	-	3.0	2.8	-	-	-	-	
Elymus canadensis (4)Y	-	1.5	4.5	5.8	-	2.9	1.2	3.1		-	1.1	3.8	6.0	1.6	-	~	2.2	
Eryngium yuccifolium (9)Y	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	
Helianthus mollis (9)Y	-	-	-	1.9	2.1	1.4	-	4.4		-	-	1.0	-	-	-	1.8	-	
Helianthus rigidus (8)N		-	-	-	-	-	-	-		-	-	-	_	-	-	-	-	
Heliopsis helianthoides (5)Y	-	-		•	3.7	1.4	1	1.3		-	2.2	4.4	3.3	1.6	2.8	1.4	1.4	
Lespedeza capitata (4)N	-	-		•	-	-	-	-		-	-	1	-	-	<u>-</u>	-	-	
Liatris spicata (6)N	-		-	-	-		,	-			-	-	-	-		-	-	
Monarda fistulosa (4)Y	-		1.4	1.4		2.0		-		1.1	-	1.0	-	-	-	1.8	5.0	
Panicum virgatum (5)Y		5.6	9.6	3.9	10.7	7.4	8.3	9.8			5.2	3.4	9.4	9.2	12.0	12.7	14.4	
Parthenium integrifolium (8)N	-	-	-	-	-	-	-	-		-	-	-	-	-	-	1.4		l
Penstemon digitalis (4)Y	-	-	-	-	-	-	1	-		-	-	-	-	-	-	-	-	
Petalostemum purpureum (9)Y	-	-	-	-	-	-	• -			-	-	-	1.4	1.6	-	-	<u> </u>	
Physostegia virginiana (6)N	-	-	-	-	-	-	1	-		-	-	-		-	-	-		
Pycnanthemum virginianum (5)Y	-	-	-	-	-	-	,	-		-	-	-			1.4	1.8	-	
Ratibida pinnata (4)Y	-	-	-	-	-	2.0	1	5.4		-	-	4	-	2.2	4.8	1.8	3.2	
Rudbeckia hirta (1)Y	-	-	1.4	-	-	-	3.5	1.3		1.1	4.4	5.8	3.3	_	-	-	-	
Silphium integrifolium (5)Y		-	-	1.4	-	4.9	-	2.2		-	-	-	-	3.8	5.8	-	1.8	
Silphium laciniatum (5)Y	-	-		-	-	1.4	,	1.3		-	-	1.0	1.9	1.6	1.9	2.3	4.0	
Silphium terebinthinaceum (5)Y	-			-			1.2	1.3		-		-	-	1.6	1.4	-	-	
Solidago graminifolia (4)Y	-			-	-	_		-		-	-	1	-	-	-	-	-	
Solidago nemoralis (4)N	-	-	-	-	-	-	-			-	-	•		-	-	-	-	
Solidago rigida (4)Y	-	-	-	-	1.5	1.4	-	1.8		-	-	-	1.9	-	-	1.8	1.8	
Sorghastrum nutans (5)Y	-	-	1.8	-	1.5	-	-	2.7		-	1.8	2.4	11.3	4.4	15.4	15.0	8.9	

EIGHTH-YEAR RESTORATION MONITORING REPORT — APPENDIX IV BLACKWELL LANDFILL PRAIRIE RESTORATION — WARRENVILLE, IL CONSERVATION DESIGN FORUM (PROJECT NO. 08035.00)

EXHIBITS

BLACKWELL LANDFILL PRAIRIE RESTORATION

Warrenville - DuPage County, Illinois





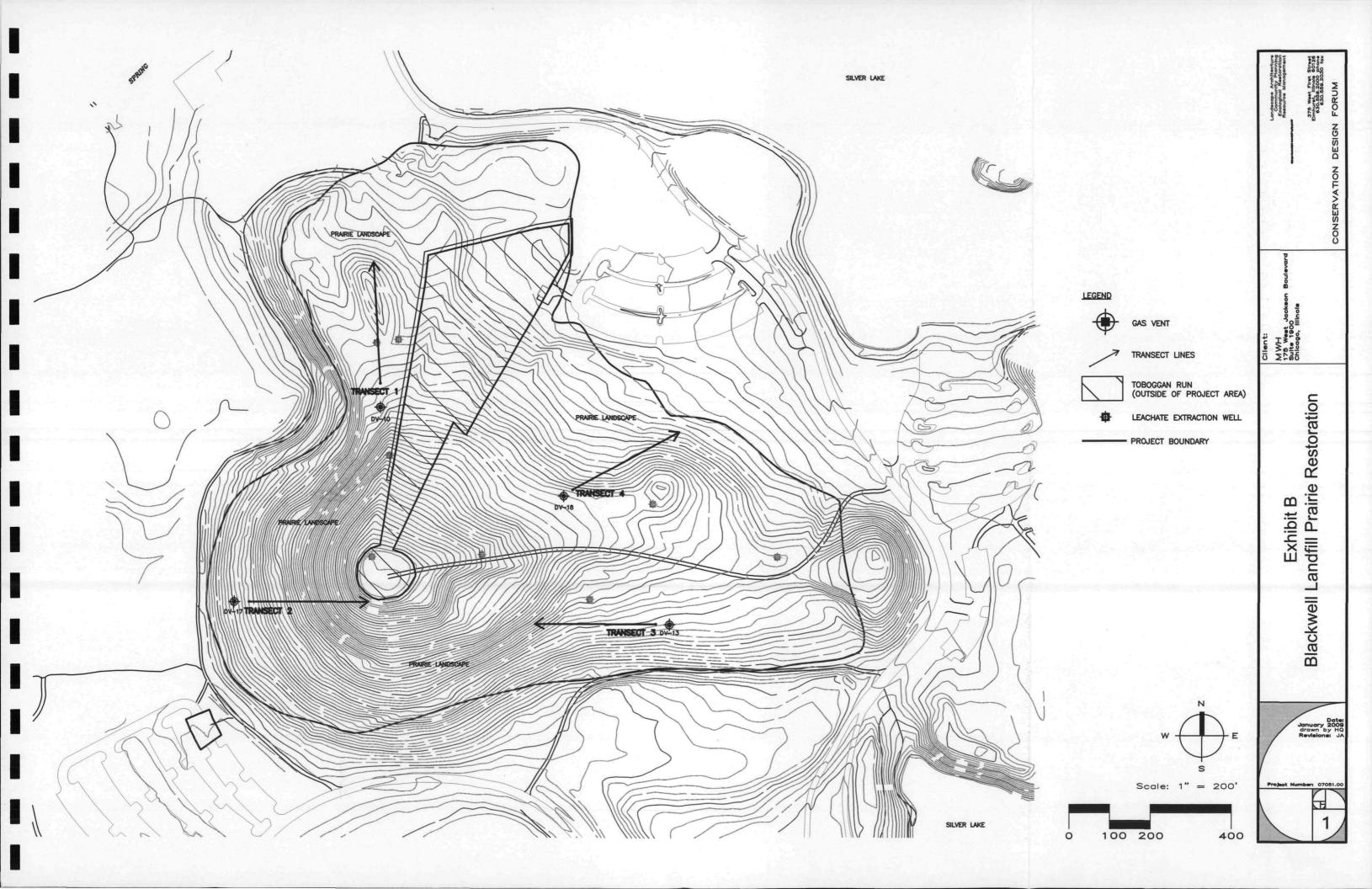
Project Number: 08035.00

Date: January 2009

Scale: Not to Scale EXHIBIT A

PROJECT LOCATION MAP





PHOTOGRAPHS









ABOVE: Controlled burn across prairie BELOW: Post-burn prairie landscape







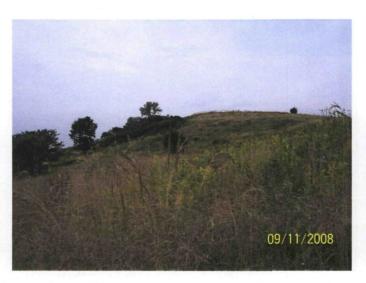


ABOVE: Select herbicide application (left); Nodding Thistle, a noxious weed (right)

BELOW: Cutting sweet clover (left); cut sweet clover for removal (right)









ABOVE: Transect 1 (left); Transect 2 (right)
BELOW: Transect 3 (left); Transect 4 (right)









ABOVE: Sapling removal and stump herbicide application BELOW: Fire break mowing around site perimeter and vaults